

Aspire 5515 Service Guide

Service guide files and updates are available on the ACER/CSD web; for more information, please refer to <http://csd.acer.com.tw>

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Revision History

Please refer to the table below for the updates made on Aspire 5515 service guide.

Date	Chapter	Updates

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Conventions

The following conventions are used in this manual:

SCREEN MESSAGES	Denotes actual messages that appear on screen.
NOTE	Gives bits and pieces of additional information related to the current topic.
WARNING	Alerts you to any damage that might result from doing or not doing specific actions.
CAUTION	Gives precautionary measures to avoid possible hardware or software problems.
IMPORTANT	Reminds you to do specific actions relevant to the accomplishment of procedures.

Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

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System Specifications

Features

Below is a brief summary of the computer's many features:

Operating System

- Genuine Windows® Vista™

Platform

-

System Memory

-

Display and graphics

-

Storage subsystem

-

Audio

-

Dimensions and Weight

-

Communication

-

Privacy control

-

Power subsystem

-

Special keys and controls

-

I/O interface

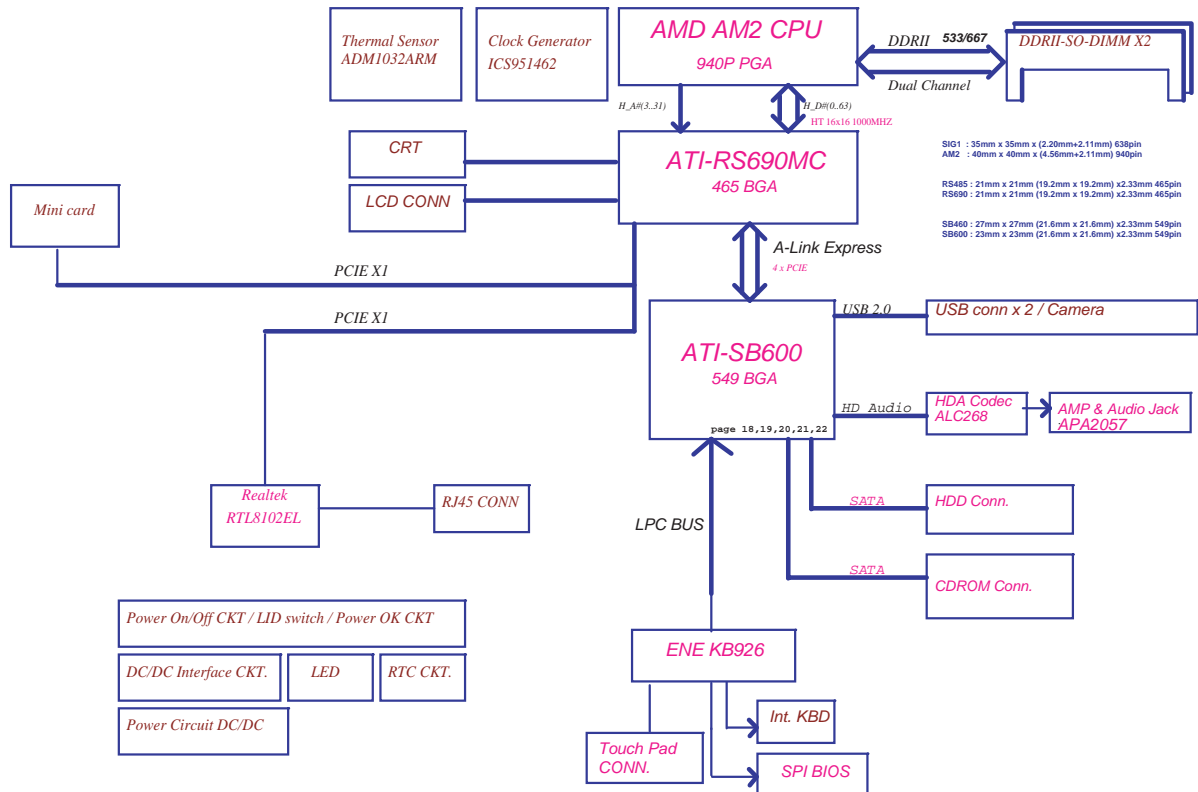
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Environment

- Temperature:
 - Operating: 5 °C to 35 °C
 - Non-operating: -20 °C to 65 °C
- Humidity (non-condensing):
 - Operating: 20% to 80%
 - Non-operating: 20% to 80%

NOTE: Items marked with * denote only selected models.

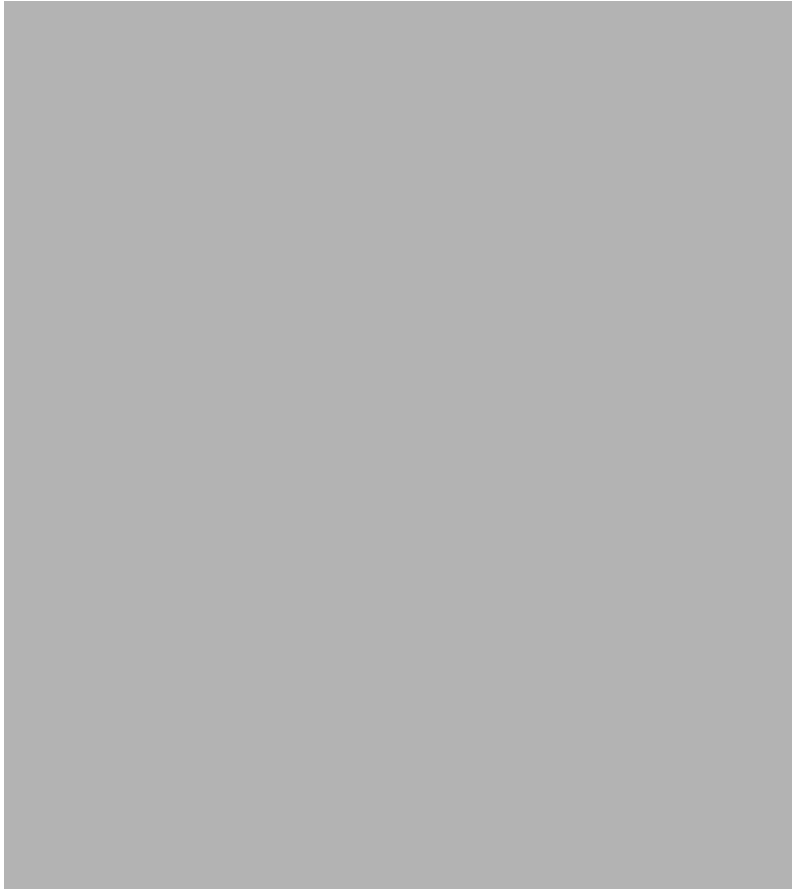
System Block Diagram











Your Acer Notebook tour

After knowing your computer features, let us show you around your new computer.

Front View



No.	Icon	Item	Description
1		Microphone	Internal microphone for sound recording.
2		Integrated webcam	Web camera for video communication (for selected models).
3		Display screen	Also called Liquid-Crystal Display (LCD), displays computer output.
4		Power button	Turns the computer on and off.
5		Wireless LAN communication button/indicator	Enables/disables the wireless LAN function. Indicates the status of wireless LAN communication.
6		Speakers	Left and right speakers deliver stereo audio output.
7		Keyboard	For entering data into your computer.
8		Palmrest	Comfortable support area for your hands when you use the computer.

No.	Icon	Item	Description
9		TouchPad	Touch-sensitive pointing device which functions like a computer mouse.
10		Click buttons (left and right)	The left and right buttons function like the left and right mouse buttons.
11		Power	Indicates the computer's power status.
		Battery	Indicates the computer's battery status. 1. Charging: The light shows amber when the battery is charging. 2. Fully charged: The light shows green when in AC mode.
		HDD	Indicates when the hard disk drive is active.
		Num Lock	Lights up when Num Lock is activated.
		Caps Lock	Lights up when Caps Lock is activated.

NOTE: The Power and Battery indicators are visible even when the computer cover is closed

Closed Front View



No.	Icon	Item	Description
1		Latch	Locks and releases the lid







Rear View



No.	Icon	Item	Description
1		Ventilation slots	Enable the computer to stay cool, even after prolonged use.


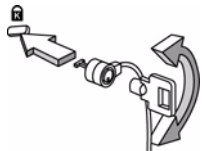

Left View



No.	Icon	Item	Description
1		Ethernet (RJ-45) port	Connects to an Ethernet 10/100-based network.
2		External display (VGA) port	Connects to a display device (e.g. external monitor, LCD projector).
3		USB 2.0 ports	Connect to USB 2.0 devices (e.g. USB mouse, USB camera).
		Line-in jack	Accepts audio line-in devices (e.g., audio CD player, stereo walkman, mp3 player).
		Microphone-in jack	Accepts input from external microphones.
		Headphones/ speaker/line-out jack	Connects to audio line-out devices (e.g. speakers, headphones).






Right View



No.	Icon	Item	Description
1		Kensington lock slot 	Connects to a Kensington-compatible computer security lock. Note: Wrap the computer security lock cable around an immovable object such as a table or handle of a locked drawer. Insert the lock into the notch and turn the key to secure the lock. Some keyless models are also available.
2		Optical drive	Internal optical drive; accepts CDs or DVDs.
3		Optical disk access indicator	Lights up when the optical drive is active.
4		Optical drive eject button	Ejects the optical disk from the drive.
5		Emergency eject hole	Ejects the optical drive tray when the computer is turned off. Note: Insert a paper clip into the emergency eject hole to eject the optical drive tray when the computer is off.
8		DC-in jack	Connects to an AC adapter






Bottom View



No.	Icon	Item	Description
1		Battery bay	Houses the computer's battery pack.
2		Battery release latch	Releases the battery for removal.
3		Memory compartment	Houses the computer's main memory.
4		Hard disk bay	Houses the computer's hard disk (secured with screws).
5		Battery lock	Locks the battery in position.
6		Ventilation slots and cooling fan	Enable the computer to stay cool, even after prolonged use. Note: Do not cover or obstruct the opening of the fan.

Indicators

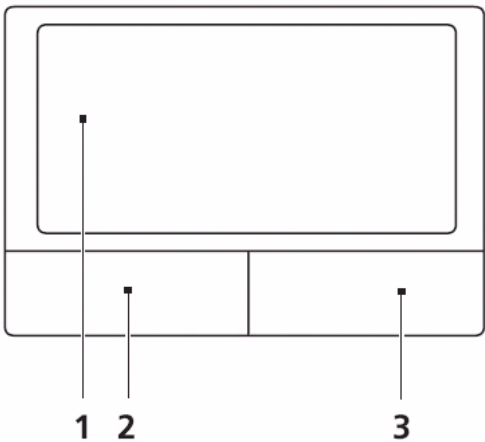
The computer has several easy-to-read status indicators. The front panel indicators are visible even when the computer cover is closed.

Icon	Function	Description
	Power	Indicates the computer's power status.
	Battery	Indicates the computer's battery status.
	HDD	Indicates when the hard disk drive is active.
	Num Lock	Lights up when Num Lock is activated.
	Caps Lock	Lights up when Caps Lock is activated.

NOTE: 1. **Charging:** The light shows amber when the battery is charging. 2. **Fully charged:** The light shows green when in AC mode.

TouchPad Basics (with fingerprint reader)

The following items show you how to use the TouchPad with Acer Bio-Protection fingerprint reader:



- Move your finger across the TouchPad (1) to move the cursor.
- Press the left (2) and right (3) buttons located beneath the TouchPad to perform selection and execution functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the TouchPad is the same as clicking the left button.

Function	Left Button (2)	Right Button (3)	Main TouchPad (2)
Execute	Quickly click twice.		Tap twice (at the same speed as double-clicking a mouse button).
Select	Click once.		Tap once.
Drag	Click and hold, then use finger on the TouchPad to drag the cursor.		Tap twice (at the same speed as double-clicking a mouse button); rest your finger on the TouchPad on the second tap and drag the cursor.
Access context menu		Click once.	

NOTE: When using the TouchPad, keep it - and your fingers - dry and clean. The TouchPad is sensitive to finger movement; hence, the lighter the touch, the better the response. Tapping too hard will not increase the TouchPad's responsiveness.

Using the Keyboard

The keyboard has full-sized keys and an embedded numeric keypad, separate cursor, lock, Windows, function and special keys.

Lock Keys and embedded numeric keypad

The keyboard has three lock keys which you can toggle on and off.






















Lock key	Description
Caps Lock	When Caps Lock is on, all alphabetic characters typed are in uppercase.
Num Lock <Fn> + <F11>	When Num Lock is on, the embedded keypad is in numeric mode. The keys function as a calculator (complete with the arithmetic operators +, -, *, and /). Use this mode when you need to do a lot of numeric data entry. A better solution would be to connect an external keypad.
Scroll Lock <Fn> + <F12>	When Scroll Lock is on, the screen moves one line up or down when you press the up or down arrow keys respectively. Scroll Lock does not work with some applications.

The embedded numeric keypad functions like a desktop numeric keypad. It is indicated by small characters located on the upper right corner of the keycaps. To simplify the keyboard legend, cursor-control key symbols are not printed on the keys.

Desired access	Num Lock on	Num Lock off
Number keys on embedded keypad	Type numbers in a normal manner.	
Cursor-control keys on embedded keypad	Hold <Shift> while using cursor-control keys.	Hold <Fn> while using cursor-control keys.
Main keyboard keys	Hold <Fn> while typing letters on embedded keypad.	Type the letters in a normal manner.

Windows Keys

The keyboard has two keys that perform Windows-specific functions.

Key	Description
 Windows key	<p>Pressed alone, this key has the same effect as clicking on the Windows Start button; it launches the Start menu. It can also be used with other keys to provide a variety of functions:</p> <p><  >: Open or close the Start menu</p> <p><  > + <D>: Display the desktop</p> <p><  > + <E>: Open Windows Explore</p> <p><  > + <F>: Search for a file or folder</p> <p><  > + <G>: Cycle through Sidebar gadgets</p> <p><  > + <L>: Lock your computer (if you are connected to a network domain), or switch users (if you're not connected to a network domain)</p> <p><  > + <M>: Minimizes all windows</p> <p><  > + <R>: Open the Run dialog box</p> <p><  > + <T>: Cycle through programs on the taskbar</p> <p><  > + <U>: Open Ease of Access Center</p> <p><  > + <X>: Open Windows Mobility Center</p> <p><  > + <BREAK>: Display the System Properties dialog box</p> <p><  > + <SHIFT+M>: Restore minimized windows to the desktop</p> <p><  > + <TAB>: Cycle through programs on the taskbar by using Windows Flip 3-D</p> <p><  > + <SPACEBAR>: Bring all gadgets to the front and select Windows Sidebar</p> <p><CTRL> + <  > + <F>: Search for computers (if you are on a network)</p> <p><CTRL> + <  > + <TAB>: Use the arrow keys to cycle through programs on the taskbar by using Windows Flip 3-D</p> <p>Note: Depending on your edition of Windows Vista, some shortcuts may not function as described.</p>
 Application key	This key has the same effect as clicking the right mouse button; it opens the application's context menu.

Hot Keys

The computer employs hotkeys or key combinations to access most of the computer's controls like screen brightness, volume output and the BIOS utility.

To activate hot keys, press and hold the **<Fn>** key before pressing the other key in the hotkey combination.



Hotkey	Icon	Function	Description
<Fn> + <F1>	?	Hotkey help	Displays help on hotkeys.
<Fn> + <F2>		Acer eSettings Management	Launches Acer eSettings Management in Acer Empowering Technology.
<Fn> + <F3>		Acer ePower Management	Launches Acer ePower Management in Acer Empowering Technology.
<Fn> + <F4>	Z ^z	Sleep	Puts the computer in Sleep mode.
<Fn> + <F5>		Display toggle	Switches display output between the display screen, external monitor (if connected) and both.
<Fn> + <F6>		Screen blank	Turns the display screen backlight off to save power. Press any key to return.
<Fn> + <F7>		TouchPad toggle	Turns the internal TouchPad on and off.
<Fn> + <F8>		Speaker toggle	Turns the speakers on and off.
<Fn> + <F9>		Brightness up	Increases the screen brightness.
<Fn> + <F10>		Brightness down	Decreases the screen brightness.

Special Key

You can locate the Euro symbol and the US dollar sign at the upper-center and/or bottom-right of your keyboard.



The Euro symbol

1. Open a text editor or word processor.
2. Hold <Alt Gr> and then press the <5> key at the upper-center of the keyboard.

NOTE: Note: Some fonts and software do not support the Euro symbol. Please refer to www.microsoft.com/typography/faq/faq12.htm for more information.

The US dollar sign

1. Open a text editor or word processor.
2. Hold <Shift> and then press the <4> key at the upper-center of the keyboard.

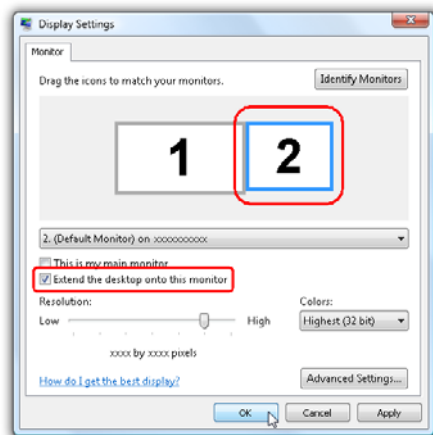
NOTE: This function varies by the operating system version.

Using the System Utilities

Acer GridVista (dual-display compatible)

NOTE: This feature is only available on certain models.

To enable the dual monitor feature of the notebook, first ensure that the second monitor is connected, then select **Start, Control Panel, Display** and click on **Settings**. Select the secondary monitor (**2**) icon in the display box and then click the check box **Extend my windows desktop onto this monitor**. Finally, click **Apply** to confirm the new settings and click **OK** to complete the process.



Acer GridVista is a handy utility that offers four pre-defined display settings so you can view multiple windows on the same screen. To access this function, please go to **Start → All Programs** and click on **Acer GridVista**. You may choose any one of the four display settings indicated below:

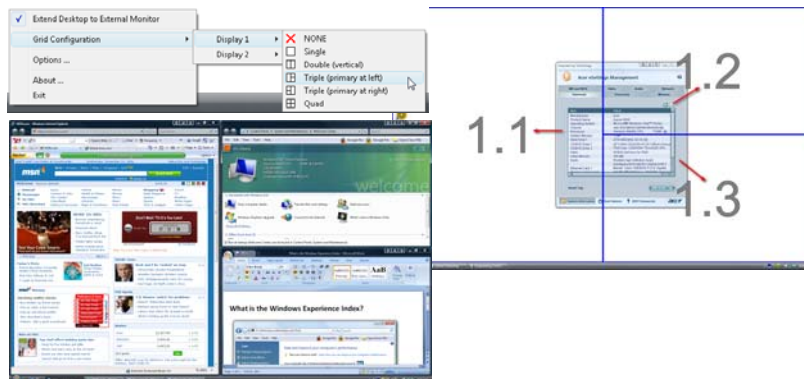


Double (vertical), Triple (primary at left), Triple (primary at right), or Quad Acer GridVista is dual-display compatible, allowing two displays to be partitioned independently.

Acer GridVista is dual-display compatible, allowing two displays to be partitioned independently.

AcerGridVista is simple to set up:

1. Run Acer GridVista and select your preferred screen configuration for each display from the task bar.
2. Drag and drop each window into the appropriate grid.
3. Enjoy the convenience of a well-organized desktop.



NOTE: Please ensure that the resolution setting of the second monitor is set to the manufacturer's recommended value.

Hardware Specifications and Configurations

Processor

Item	Specification
CPU type	AMD Desktop Athlon, Socket AM2, 512KB catch, HyperTransport I/F up to 1000 MHz
Core Logic	<ul style="list-style-type: none">• AMD RS690MC• AMD SB600
CPU Package	AM2 PGA-940

CPU Fan True Value Table

CPU Temperature		Fan Speed (rpm)	SPL Spec (dBA)
Core 0	Core 1		

BIOS

Item	Specification
BIOS vendor	PhoenixBIOS
BIOS Version	V0.08
BIOS ROM type	Flash
BIOS ROM size	1 MB
Supported protocols	<ul style="list-style-type: none">• Support ISIPP• Support Acer UI• Support multi-boot• Suspend to RAM (S3)/Disk (S4)• Various hot-keys for system control• Support SMBIOS 2.3, PCI2.2• ACPI 2.0 compliance with Intel Speed Step Support C1, C2, C3 and S3, S4 for desktop CPU• DMI utility for BIOS serial number configurable/asset tag• Support PXE• Support Y2K solution• Support Win Flash Wake on LAN from S3• Wake on LAN form S4 in AC mode• System information
BIOS password control	Supervisor, User, and HDD0

System Memory

Item	Specification
Memory controller	On Board
Memory size	0 MB
DIMM socket number	2
Supports memory size per socket	2 GB
Supports maximum memory size	4 GB
Supports DIMM type	DDR SODIMM
Supports DIMM Speed	DDR II 667/800 SDRAM
Supports DIMM voltage	+1.8V
Cache	512KB cache on CPU
Features	Adjustable 64/128/256MB UMA VGA memory share from North Bridge

Memory Combinations

Slot 1	Slot 2	Total Memory
0MB	512MB	512MB
0MB	1024MB	1024MB
0MB	2048MB	2048MB
512MB	512MB	1024MB
512MB	1024MB	1536MB
512MB	2048MB	2560MB
1024MB	0MB	1024MB
1024MB	512MB	1536MB
1024MB	1024MB	2048MB
1024MB	2048MB	3072MB
2048MB	0MB	2048MB
2048MB	512MB	2560MB
2048MB	1024MB	3072MB
2048MB	2048MB	4096MB

NOTE: Above table lists some system memory configurations. You may combine DIMMs with various capacities to form other combinations. On above table, the configuration of slot 1 and slot 2 could be reversed.

LAN Interface

Item	Specification
LAN Chipset	Realtek RTL8102EL for 10/100 LAN
Supports LAN protocol	
LAN connector type	RJ-45
LAN connector location	Left side
Features	

Wireless Module 802.11b/g

Item	Specification
Chipset	
Data throughput	
Protocol	

Item	Specification
Interface	

Hard Disk Drive Interface

Item	Specification		
Vendor	Seagate Momentus 5400.4 SATA		
Model Name	ST9250827AS	ST9160827AS	ST9120817AS
Capacity (MB)	250	160	120
Bytes per sector	512		
Data heads	4	3	2
Drive Format			
Disks	2	2	1
Spindle speed (RPM)	5,400		
Performance Specifications			
Buffer size	8MB		
Interface	SATA		
Internal transfer rate (Mbits/sec max)	778		
Sustained transfer rate (Mbytes/sec max)	58		
I/O data transfer rate (Mbytes/sec max)	300		
DC Power Requirements			
Voltage tolerance	5V(DC) +/- 5%		

Item	Specification			
Vendor	Seagate Momentus 5400.5 SATA			
Model Name	ST9320320AS	ST9250320AS	ST9160310AS	ST9120310AS
Capacity (MB)	320	250	160	120
Bytes per sector	512			
Data heads	4	4 or 3	2	2
Drive Format				
Disks	2 or 1	2	1	1
Spindle speed (RPM)	5,400			
Performance Specifications				
Buffer size	8 MB			
Interface	SATA			
Internal transfer rate (Mbits/sec max)	352			
I/O data transfer rate (Mbytes/sec max)	150			
DC Power Requirements				
Voltage tolerance	5V(DC) +/- 5%			

Super-Multi Drive Module

Item	Specification	
Vendor & model name	HLDS/GSA-T50N, Philips DS-8A2S, Sony/AD-7560S, Toshiba Digi/TS-L633A	
Performance Specification	With CD Diskette	With DVD Diskette
Transfer rate (MB/sec)	Sustained: Max 3.5 Mbytes/sec	Sustained: Max 10 Mbytes/sec
Buffer Memory	2MB	
Interface	SATA	
Applicable disc format	Applicable media types: Writing: Confirms to DVD+R Version 1.2 and DVD+RW Version 1.3 / DVD+R DL Version 1.0 /DVD-R Version 2.0 / DVD-RW Version 1.2 / DVD-R DL Version 3.0. Reading: DVD single/dual layer (PTP, OTP), DVD-R single/dual layer DVD+R single/double layer DVD-RW DVD+RW CD-DA CD-ROM CD-ROM/XA Photo-CD, Multi-session, Video CD CD-I FMV, CD Extra, CD Plus, CD-R, and CD-RW	
Loading mechanism	Drawer (Solenoid Open) Tact SW (Open) Emergency Release (draw open hole)	
Power Requirement		
Input Voltage	DC 5 V +/- 5%	

Audio Interface

Item	Specification
Audio Controller	REALTEK ALC268 for High Definition Audio Codec
Mono or Stereo	Stereo
Compatibility	<ul style="list-style-type: none">• MIC IN<ul style="list-style-type: none">• AC-coupled input, 100mV-P maximum• Headphone out<ul style="list-style-type: none">• 1V-P• 44.1/48/96/192kHz output• Build-in Speaker<ul style="list-style-type: none">• 4CC 1.5W Speaker

System Board Major Chips

Item	Controller
Core logic	<ul style="list-style-type: none">• AMD RS690MC (1000MHz HT supported)• AMD SB600• Integrated VGA solution for RS690MC
LAN	Realtek RTL8102EL for 10/100 LAN
Audio Codec	REALTEK ALC268 for High Definition Audio Codec
Keyboard	ENE KB926 for Keyboard Controller, Battery management Unit.

Keyboard

Item	Specification
Keyboard controller	ENE KB926
Total number of keypads	87
Windows logo key	Yes
Internal & external keyboard work simultaneously	Yes

Battery

Item	Specification
Vendor & model name	SIMPLO
Battery Type	Li-ion
Pack capacity	
Number of battery cell	
Package configuration	

LCD 14.1"

Item	Specification
Vendor/model name	LG.Philips/LP141WX3, AUO/B141EW04 V4, Chimei/N141I3 - L02, Samsung/LTN141W3-L01
Screen Diagonal (mm)	14.1 inches
Active Area (mm)	303.74 x 189.84 mm
Display resolution (pixels)	1280 x 800 WXGA
Pixel Pitch	0.2373 x 0.2373 mm
Pixel Arrangement	R.G.B. Vertical Stripe
Display Mode	Transmissive mode, normally white
Typical White Luminance (cd/m ²) also called Brightness	200 cd/m2(Typ.5 point)
Luminance Uniformity	1.3 max.
Contrast Ratio	300 minimum
Response Time (Optical Rise Time/Fall Time) msec	16
Nominal Input Voltage VDD	+3.3V
Typical Power Consumption (watt)	1.4W max.
Weight (without inverter)	400g max.
Physical Size (mm)	319.5 (±0.5) x 205.5 (± 0.5) x 5.5 max.
Electrical Interface	3.3V LVDS interface with 1 pixel/clock
Support Color	greater than 262144
Viewing Angle (degree) Horizontal: Right/Left Vertical: Upper/Lower	Minimum: 40/40, Typical: 45/45 Minimum: 10/30, Typical: 20/35
Temperature Range (°C) Operating Storage (shipping)	0 to +50 -20 to +60

System Utilities

BIOS Setup Utility

The BIOS Setup Utility is a hardware configuration program built into your computer's BIOS (Basic Input/Output System).

Your computer is already properly configured and optimized, and you do not need to run this utility. However, if you encounter configuration problems, you may need to run Setup. Please also refer to Chapter 4 Troubleshooting when problem arises.

To activate the BIOS Utility, press **F2** during POST (when "Press <F2> to enter Setup" message is prompted on the bottom of screen).

Press **F2** to enter setup. The default parameter of F12 Boot Menu is set to "disabled". If you want to change boot device without entering BIOS Setup Utility, please set the parameter to "enabled".

Press <F12> during POST to enter multi-boot menu. In this menu, user can change boot device without entering BIOS SETUP Utility.

Navigating the BIOS Utility

There are six menu options: Information, Main, Advanced, Security, Boot, and Exit.

Follow these instructions:

- To choose a menu, use the left and right arrow keys.
- To choose an item, use the up and down arrow keys.
- To change the value of a parameter, press **F5** or **F6**.
- A plus sign (+) indicates the item has sub-items. Press **Enter** to expand this item.
- Press **Esc** while you are in any of the menu options to go to the Exit menu.
- In any menu, you can load default settings by pressing **F9**. You can also press **F10** to save any changes made and exit the BIOS Setup Utility.

NOTE: You can change the value of a parameter if it is enclosed in square brackets. Navigation keys for a particular menu are shown on the bottom of the screen. Help for parameters are found in the Item Specific Help part of the screen. Read this carefully when making changes to parameter values. **Please note that system information is subject to different models.**

Information

The Information screen displays a summary of your computer hardware information.

PhoenixBIOS Setup Utility					
Information	Main	Advanced	Security	Power	Boot Exit
CPU Type:	AMD Athlon(tm) Processor 2650e				
CPU Speed:	1600 MHz				
IDE0 Model Name:	WDC WD1600BEVT-22ZCT0 -(PM)				
IDE0 Serial Number:	WD-WXE708J87380				
ATAPI Model Name:	HL-DT-STDVDRAM GT10N -(PS)				
System BIOS Version:	V0.08				
VGA BIOS Version:	V010.055.000.049.029773				
Serial Number:	S2N250Y001832099561601				
Asset Tag Number:					
Product Name:	Aspire..5515				
Manufacturer Name:	Aspire				
UUID:	39323232393932643635001EEC5A9BCF				
F1 Help	↑↓ Select Item	F5/F6 Change Values		F9 Setup Defaults	
Esc Exit	←→ Select Menu	Enter Select▶ Sub-Menu		F10 Save and Exit	

NOTE: The system information is subject to different models.

Parameter	Description
CPU Type	This field shows the CPU type and speed of the system.
CPU Speed	This field shows the speed of the CPU.
IDE0 Model Name	This field shows the model name of HDD installed on primary IDE master.
IDE0 Serial Number	This field displays the serial number of HDD installed on primary IDE master.
ATAPI Model Name	This field shows the model name of the Optical device installed in the system.
System BIOS Version	Displays system BIOS version.
VGA BIOS Version	This field displays the VGA firmware version of the system.
Serial Number	This field displays the serial number of this unit.
Asset Tag Number	This field displays the asset tag number of the system.
Product Name	This field shows product name of the system.
Manufacturer Name	This field displays the manufacturer of this system.
UUID Number	Universally Unique Identifier (UUID) is an identifier standard used in software construction, standardized by the Open Software Foundation (OSF) as part of the Distributed Computing Environment (DCE).

Main

The Main screen allows the user to set the system time and date as well as enable and disable boot option and recovery.

PhoenixBIOS Setup Utility						
Information	Main	Advanced	Security	Power	Boot	Exit
<div>System Time: [17:02:07]</div> <div>System Date: [09/09/2008]</div> <div>System Memory: 633 KB</div> <div>Extended Memory: 1789 MB</div> <div>Video Memory: [256MB]</div> <div>Quiet Boot: [Enabled]</div> <div>Network Boot: [Enabled]</div> <div>D2D Recovery: [Enabled]</div> <div>SATA Mode: [IDE ACHI]</div>						Item Specific Help
						<Tab>, <Shift+Tab>, or <Enter> selects field.
F1 Help	↑↓ Select Item	F5/F6 Change Values			F9 Setup Defaults	
Esc Exit	←→ Select Menu	Enter Select▶Sub-Menu			F10 Save and Exit	

NOTE: The screen above is for your reference only. Actual values may differ.

The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Format/Option
System Time	Sets the system time. The hours are displayed with 24-hour format.	Format: HH:MM:SS (hour:minute:second)
System Date	Sets the system date.	Format MM/DD/YYYY (month/day/year)
System Memory	This field reports the memory size of the system. Memory size is fixed to 633 KB.	N/A
Extended Memory	This field reports the memory size of the system. Memory size is fixed to 1789 MB.	N/A
Video Memory	Shows the video memory size.	256 , 128, or 64 MB
Quiet Boot	Displays the logo screen while booting.	Option: Enabled or Disabled
Network Boot	Enables, disables the system boot from LAN (remote server).	Option: Enabled or Disabled
D2D Recovery	Enables, disables D2D Recovery function. The function allows the user to create a hidden partition on hard disc drive to store operation system and restore the system to factory defaults.	Option: Enabled or Disabled
SATA Mode	Control the mode in which the SATA controller should operate.	Option: AHCI Mode or IDE Mode

Advanced

The Advanced screen allows the user to configure the various advanced BIOS options.

IMPORTANT: Making incorrect settings to items on these pages may cause the system to malfunction. Unless you have experience adjusting these items, we recommend that you leave these settings at the default values. If making settings to items on these pages causes your system to malfunction or prevents the system from booting, open BIOS and choose Load Optimal Defaults in the Exit menu to boot up normally.

PhoenixBIOS Setup Utility			
Information	Main	Advanced	Security Power Boot Exit
			Item Specific Help
<div>▶PnP Configuration</div> <div>▶Video Display Configuration</div> <div>▶Advanced Chipset Control</div> <div>PS/2 Mouse [Enabled]</div> <div>IDE Controller: [Disabled]</div> <div>On chip SATA [Enabled]</div> <div>SATA Mode: [IDE AHCI]</div> <div>SATA Smbus Interface [Enabled]</div> <div>USB Host Controller: [Enabled]</div> <div>Legacy USB Support: [Enabled]</div> <div>Option ROM Placement [Disabled]</div> <div>Gigabit Lan [Enabled]</div> <div>Network Boot: [Enabled]</div> <div>Large Disk Access Mode: [DOS]</div> <div>Installed O/S: [Other]</div> <div>Reset Configuration Data: [No]</div> <div>Processor Assisted Virtualization: [Enabled]</div>			Additional setup menus to configure PCI devices
F1 Help	↑↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	←→ Select Menu	Enter Select▶Sub-Menu	F10 Save and Exit

The table below describes the items, menus, and submenus in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Submenu Items
PnP Configuration	Enter the PnP Configuration menu.	<ul style="list-style-type: none">• Palette Snooping• PCI/PNP ISA UMB Region Exclusion• PCI/PNP ISA IRQ Resource Exclusion
Video Display Configuration	Enter the Video Display Configuration menu.	<ul style="list-style-type: none">• ATIF ACPI Methods• Video Display Devices• Video Expansion
Advanced Chipset Control	Enter the Advanced Chipset Control menu.	<ul style="list-style-type: none">• Advanced NB Options• Advanced SB Options• TriCore Down Core

Parameter	Description	Submenu Items
PS/2 Mouse	Enable or Disable PS/2 Mouse port IRQ12.	Option: Enabled , Auto Detect, or Disabled
IDE Controller	Configure the Integrated Local Bus IDE Controller.	Option: Disabled or Enabled
On Chip SATA	Enable On chip SATA.	Option: Enabled or Disabled
SATA Mode	Select the SATA Mode.	Option: IDE-ACHI or IDE Native
SATA Smbus Interface	Enable or disable the SATA Smbus Interface.	Option: Enabled or Disabled
USB Host Controller	Enable or disable USB hardware.	Option: Enabled or Disabled
Legacy USB Support	Enable support for Legacy Universal Serial Bus.	Option: Enabled or Disabled
Option ROM Placement	Determines which peripheral devices can be booted. NOTE: Changes to this setting can cause the system to halt during boot.	Option: Disabled , Temporary, or E000 Extend
Gigabit Lan	Enable or disable the on board Gigabit LAN.	Option: Enabled or Disabled
Network Boot	Enable to support LAN on mainboard boot or disable for faster stand alone boot.	Option: Enabled or Disabled
Large Disk Access Mode	Set the Large Disk Access mode. Different O/S require different drive geometry representations. Select Other for UNIX, Novell NetWare, or other O/S.	Option: DOS or Other
Installed O/S	Set the most commonly used O/S on the system.	Option: Other , Win2000, WinMe, Win98, or Win95
Reset Configuration Data	Clear Extended System Configuration Data (ESCD) area.	Option: No or Yes
Processor Assisted Virtualization	Enable the hardware visualization support.	Option: Enabled or Disabled

Security

The Security screen contains parameters that help safeguard and protect your computer from unauthorized use.

PhoenixBIOS Setup Utility											
Information	Main	Advanced	Security	Power	Boot	Exit					
Supervisor Password Is Clear User Password Is Clear HDD 0 Password Is Clear Set Supervisor Password [Enter] Set User Password [Enter] Set HDD 0 Password [Enter] Password on Boot: [Disabled]						Item Specific Help					
						Supervisor Password controls access to the setup utility. It can be used to boot up when Password on Boot is enabled.					
F1 Help		↑↓ Select Item		F5/F6 Change Values		F9 Setup Defaults					
Esc Exit		←→ Select Menu		Enter Select▶ Sub-Menu		F10 Save and Exit					

The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Option
Supervisor Password Is	Shows the setting of the Supervisor password	Clear or Set
User Password Is	Shows the setting of the user password.	Clear or Set
HDD 0 Password Is	Shows the setting of the hard disk password.	Clear or Set
Set Supervisor Password	Press Enter to set the supervisor password. When set, this password protects the BIOS Setup Utility from unauthorized access. The user can not either enter the Setup menu nor change the value of parameters.	N/A
Set User Password	Press Enter to set the user password. When user password is set, this password protects the BIOS Setup Utility from unauthorized access. The user can enter Setup menu only and does not have right to change the value of parameters.	N/A
Set HDD 0 Password	Enter HDD 0 Password.	N/A
Password on Boot	Defines whether a password is required or not while the events defined in this group happened. The following sub-options are all requires the Supervisor password for changes and should be grayed out if the user password was used to enter setup.	Disabled or Enabled

NOTE: When you are prompted to enter a password, you have three tries before the system halts. Don't forget your password. If you forget your password, you may have to return your notebook computer to your dealer to reset it.

Setting a Password

Follow these steps as you set the user or the supervisor password:

1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the **Enter** key. The Set Supervisor Password box appears:

Set Supervisor Password		
Enter New Password	[]
Confirm New Password	[]

2. Type a password in the “Enter New Password” field. The password length can not exceeds 8 alphanumeric characters (A-Z, a-z, 0-9, not case sensitive). Retype the password in the “Confirm New Password” field.

IMPORTANT: Be very careful when typing your password because the characters do not appear on the screen.

3. Press **Enter**. After setting the password, the computer sets the User Password parameter to “Set”.
4. If desired, you can opt to enable the Password on boot parameter.
5. When you are done, press F10 to save the changes and exit the BIOS Setup Utility.

Removing a Password

Follow these steps:

1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the **Enter** key. The Set Password box appears:

Set Supervisor Password		
Enter current password	[]
Enter New Password	[]
Confirm New Password	[]

2. Type the current password in the Enter Current Password field and press **Enter**.
3. Press **Enter** twice **without** typing anything in the Enter New Password and Confirm New Password fields. The computer then sets the Supervisor Password parameter to “Clear”.
4. When you have changed the settings, press u to save the changes and exit the BIOS Setup Utility.

Changing a Password

1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the **Enter** key. The Set Password box appears.

Set Supervisor Password		
Enter current password	[]
Enter New Password	[]
Confirm New Password	[]

2. Type the current password in the Enter Current Password field and press **Enter**.
3. Type a password in the Enter New Password field. Retype the password in the Confirm New Password field.
4. Press **Enter**. After setting the password, the computer sets the User Password parameter to “Set”.
5. If desired, you can enable the Password on boot parameter.
6. When you are done, press F10 to save the changes and exit the BIOS Setup Utility.

If the verification is OK, the screen will display as following.

Setup Notice
Changes have been saved.
[continue]

The password setting is complete after the user presses **Enter**.

If the current password entered does not match the actual current password, the screen will show you the Setup Warning.

Setup Warning
Invalid password
Re-enter Password
[continue]

If the new password and confirm new password strings do not match, the screen will display the following message.

Setup Warning
Password do not match
Re-enter Password

Power

The Power screen allows the user to configure various CPU and power management options and device wakeup behavior.

PhoenixBIOS Setup Utility						
Information	Main	Advanced	Security	Power	Boot	Exit
Enable Cool 'n' Quiet: C State Confinguration						Item Specific Help
[Enabled] [C2 and C3]						Enable Cool 'n' Quiet for CPU power management.
F1 Help ↑↓ Select Item F5/F6 Change Values F9 Setup Defaults Esc Exit ←→ Select Menu Enter Select▶ Sub-Menu F10 Save and Exit						

The table below describes the items, menus, and submenus in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Option
Enable Cool 'n' Quiet	Enable or disable Cool 'n' Quiet CPU power management.	Option: Enabled or Disabled
C State Configuration	Enable or disable the C2/C3 power states in the ACPIFACP table.	Option: C2 and C3 , Disabled, C2 only, or C3 only.

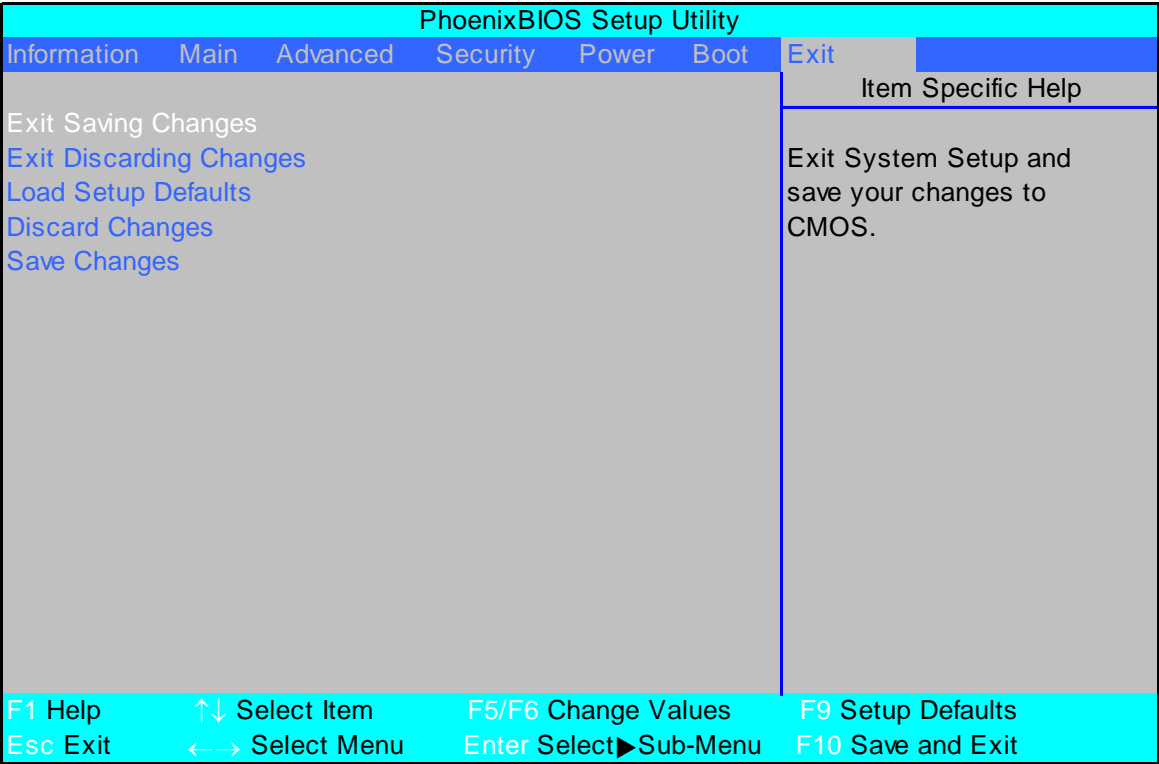
Boot

This menu allows the user to decide the order of boot devices to load the operating system. Bootable devices includes the USB diskette drives, the onboard hard disk drive and the DVD drive in the module bay.

PhoenixBIOS Setup Utility						
Information	Main	Advanced	Security	Power	Boot	Exit
Boot priority order: 1. IDE0 : WDC WD1600BEVT-22ZCT0-(S1) 2. IDE1 : HL-DT-STDVDRAM GT10N-(S3) 3. Network Boot : Realtek Boot Agent 4. USB HDD : 5. USB FDD : 6. USB KEY : 7. USB CD/DVD ROM :						Item Specific Help
						Use <↑> or <↓> to select a device, then press <F6> to move it up the list, or <F5> to move it down the list. Press <Esc> to escape the menu.
F1 Help	↑↓ Select Item	F5/F6 Change Values		F9 Setup Defaults		
Esc Exit	←→ Select Menu	Enter Select ► Sub-Menu		F10 Save and Exit		

Exit

The Exit screen allows you to save or discard any changes you made and quit the BIOS Utility.



The table below describes the parameters in this screen.

Parameter	Description
Exit Saving Changes	Exit System Setup and save your changes to CMOS.
Exit Discarding Changes	Exit utility without saving setup data to CMOS.
Load Setup Default	Load default values for all SETUP item.
Discard Changes	Load previous values from CMOS for all SETUP items.
Save Changes	Save Setup Data to CMOS.

BIOS Flash Utilities

The BIOS flash memory update is required for the following conditions:

- New versions of system programs
- New features or options
- Restore a BIOS when it becomes corrupted.

Use the Phlash utility to update the system BIOS flash ROM.

NOTE: If you do not have a crisis recovery diskette at hand, then you should create a **Crisis Recovery Diskette** before you use the Phlash utility.

NOTE: Do not install memory-related drivers (XMS, EMS, DPMI) when you use the Phlash.

NOTE: Please use the AC adaptor power supply when you run the Phlash utility. If the battery pack does not contain enough power to finish BIOS flash, you may not boot the system because the BIOS is not completely loaded.

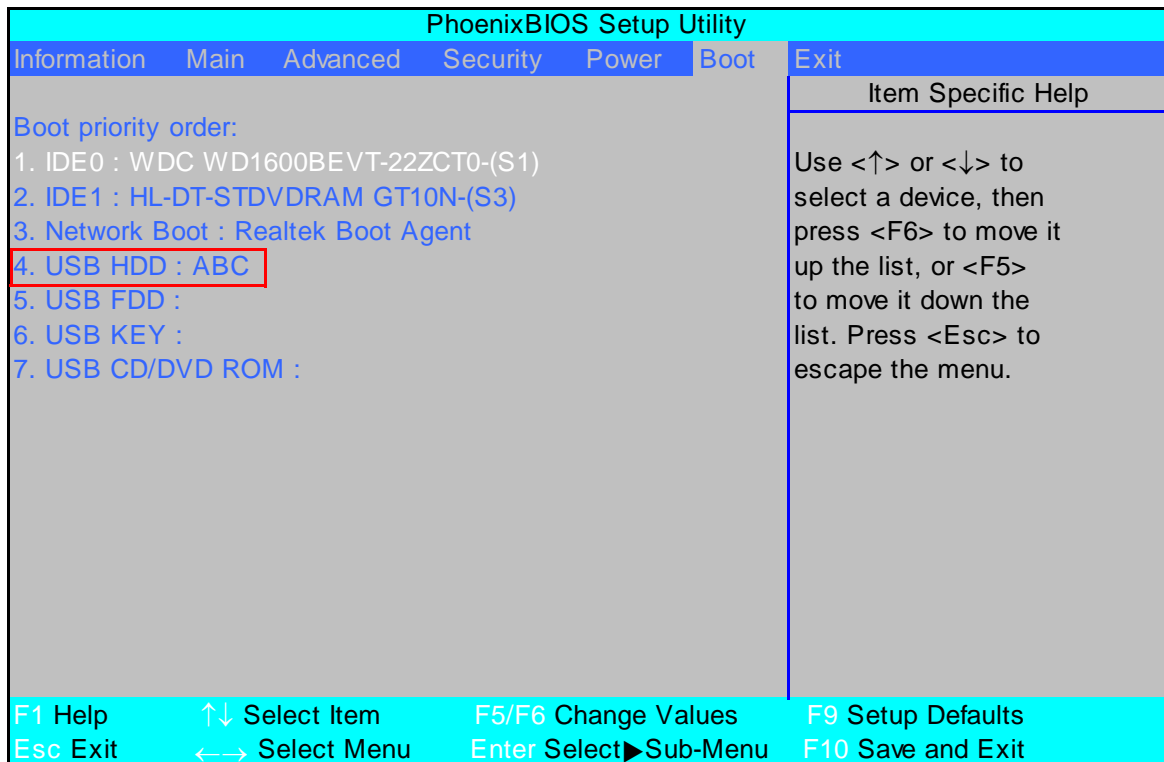
Follow the steps below to run the Phlash.

1. Prepare a bootable diskette.
2. Copy the flash utilities to the bootable diskette.
3. Then boot the system from the bootable diskette. The flash utility has auto-execution function.

DOS Flash Utility

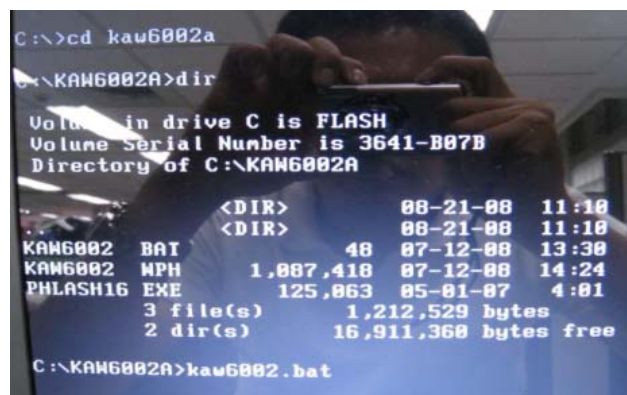
Perform the following steps to use the DOS Flash Utility:

1. Press F2 during boot to enter the Setup Menu.
2. Select **Boot Menu** to modify the boot priority order, for example, if using USB HDD to Update BIOS, move USB HDD to position 1.



3. Execute the **KAW6xxx.BAT** batch file to update BIOS.

The flash process begins as shown.



4. In flash BIOS, the message **Please do not remove AC Power Source** displays.

NOTE: If the AC power is not connected, the following message displays.



Plug in the AC power to continue.

5. Flash is complete when the message **Flash programming complete** displays.

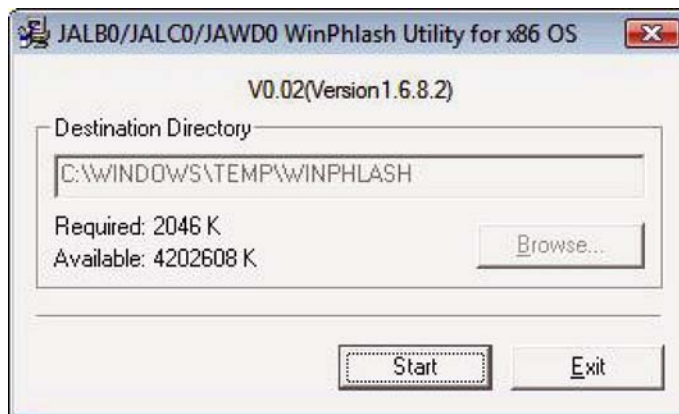
WinFlash Utility

Perform the following steps to use the WinFlash Utility:

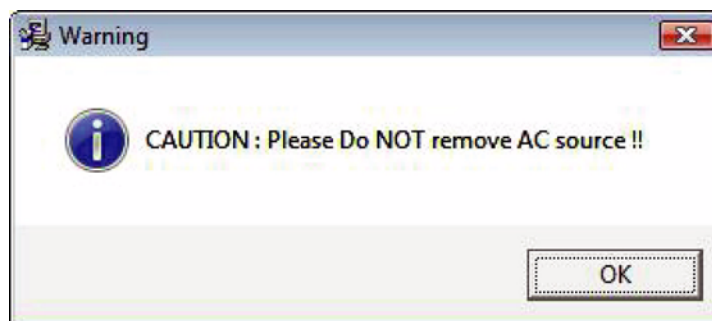
IMPORTANT: Ensure only one *.wph file is present in the destination directory when using flash32.exe. If more than one file is present the computer will blue screen.

1. Double click the WinFlash executable.

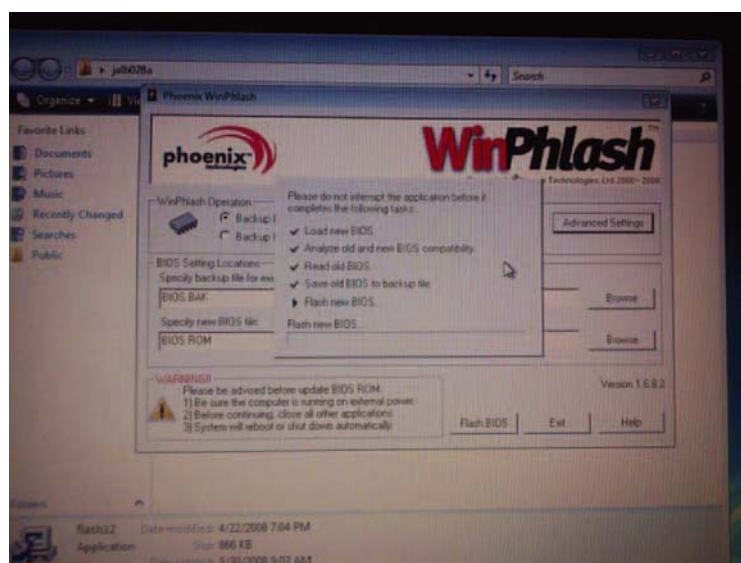
The Destination Directory screen displays.



2. Click **Start**. A warning screen displays.



3. Click **OK** to begin the update. A progress screen displays.



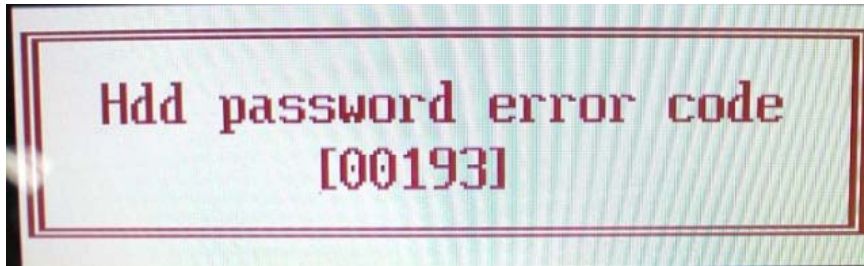
4. When the process is complete, close all programs and applications and reboot the system.

Remove HDD/BIOS Password Utilities

This section provide you with removing HDD/BIOS password method:

Remove HDD Password:

If you key in the wrong HDD password three time, **HDD password error code** displays on the screen.

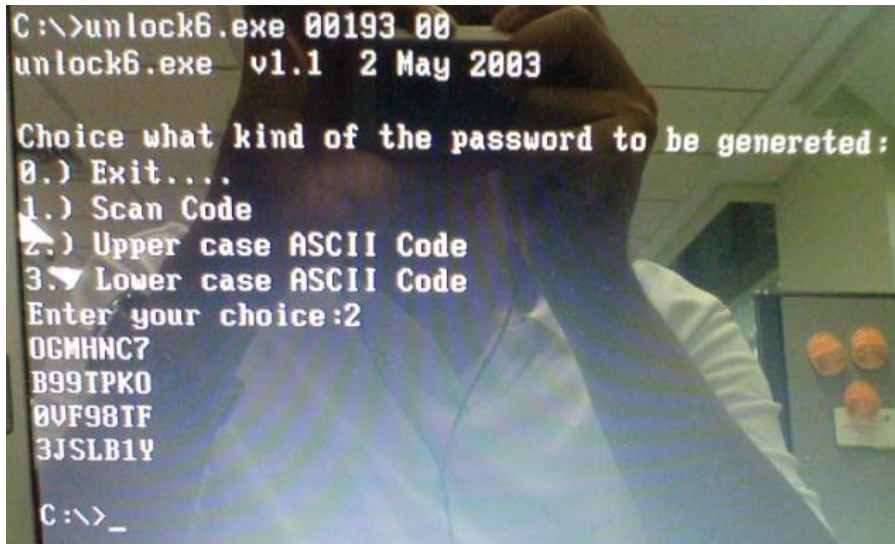


To reset the HDD password, perform the following steps:

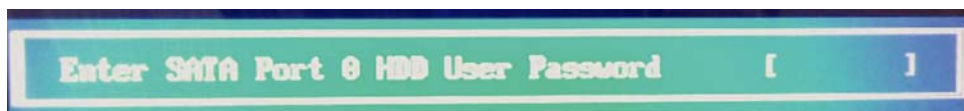
1. From a DOS prompt, key in **Unlock6.exe 00193 00** and press **<Enter>**.

The **Unlock6** program runs.

2. Select option **2**, Upper case ASCII Code, and press **<Enter>**.

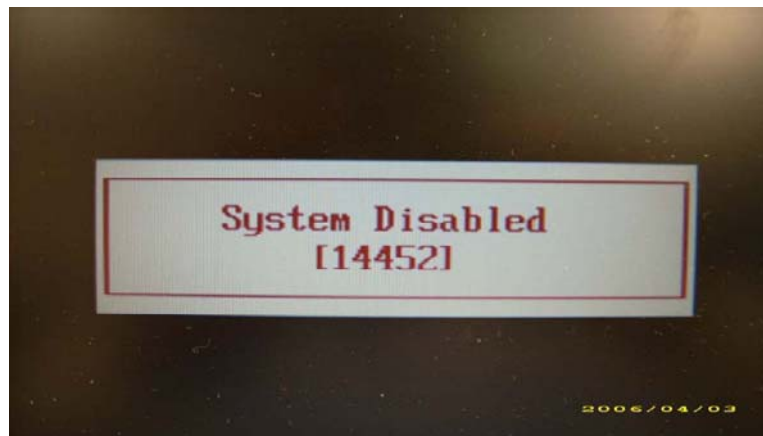


3. Make a note of one of the displayed passwords, for example **B99TPK0**, as shown.
4. Power off the system by holding down the power button for >4 seconds.
5. Reboot the system and key in the chosen password to unlock the HDD.



Removing BIOS Passwords:

If you key in the wrong Supervisor Password three times, System Disabled displays on the screen. See the image below.



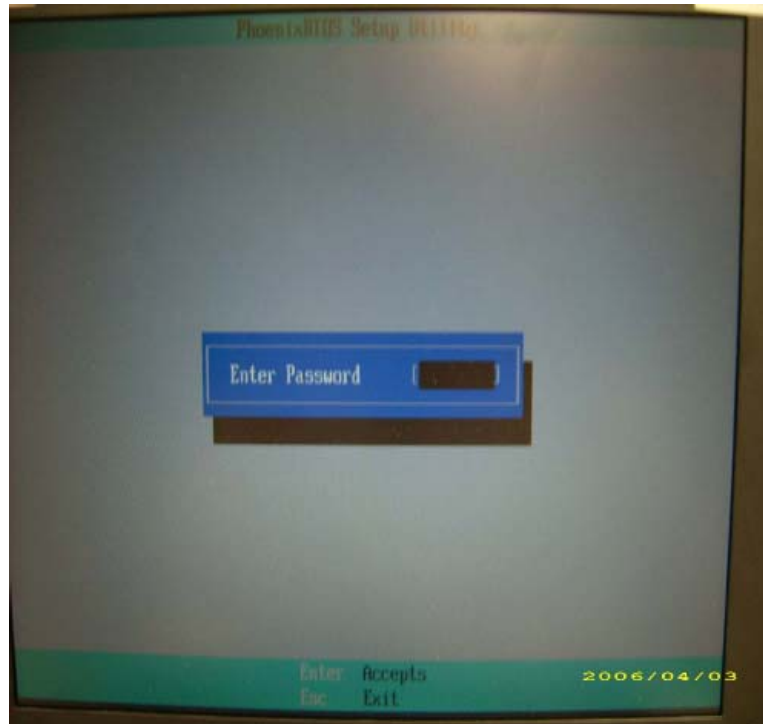
To reset the BIOS password, run BIOS_PW.EXE as follows:

1. Key in **bios_pw 14452 0**
2. Select one string from the list.

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\M54>d:
D:\>bios_pw 14452 0 1.
unlock6.exe v1.0 1 July 1997
qj1g9v0q
07yqmjd
cjl14tm
6mbzjaj 2.
D:\>_
```

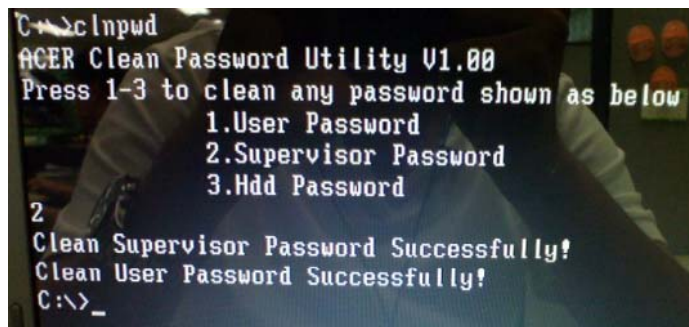

3. Reboot the system and key in the selected string (qjjg9vy, 07yqmqd etc.) for the BIOS user password.



Cleaning BIOS Passwords

To clear the password, perform the following steps:

1. From a DOS prompt, Execute **clnPwd.exe**



2. Press 1, 2, or 3 to clean the desired password shown on the screen.

The onscreen message determines whether the function is successful or not.

Using DMITools

The DMI (Desktop Management Interface) Tool copies BIOS information to eeprom to be used in the DMI pool for hardware management.

When the BIOS displays **Verifying DMI pool data** it is checking the table correlates with the hardware before sending to the operating system (Windows, etc.).

To update the DMI Pool, perform the following steps:

1. Boot into DOS.
2. Execute **dmitools**. The following messages report to screen to confirm completion:
 - `dmitools /r ==>` Read dmi string from bios
 - `dmitools /wm xxxx ==>` Write manufacturer name to eeprom
 - `dmitools /wp xxxx ==>` Write product name to eeprom
 - `dmitools /ws xxxx ==>` Write serial number to eeprom
 - `dmitools /wu xxxx ==>` Write uuid to eeprom
 - `dmitools /wa xxxx ==>` Write asset tag to eeprom

Using the ICW50/ICY70 LAN MAC Utility

1. Boot into DOS.
2. Execute **go.bat**

Machine Disassembly and Replacement

IMPORTANT: The outside housing and color may vary from the mass produced model.

This chapter contains step-by-step procedures on how to disassemble the notebook computer for maintenance and troubleshooting.

Disassembly Requirements

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge
- Flat screwdriver
- Philips screwdriver
- Plastic flat screwdriver
- Plastic tweezers

NOTE: The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatch when putting back the components.

IMPORTANT: Various images depict the use of a regular metal screwdriver, however, a plastic screwdriver is advised when disassembling parts near or around the motherboard and to prevent scratching of the computer surface.

General Information

Pre-disassembly Instructions

Before proceeding with the disassembly procedure, make sure that you do the following:

1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.



3. Place the system on a flat, stable surface.
4. Remove the battery pack.

Disassembly Process

The disassembly process is divided into the following stages:

- External module disassembly
- Main unit disassembly
- LCD module disassembly

The flowcharts provided in the succeeding disassembly sections illustrate the entire disassembly sequence. Observe the order of the sequence to avoid damage to any of the hardware components. For example, if you want to remove the main board, you must first remove the keyboard, then disassemble the inside assembly frame in that order.

Main Screw List

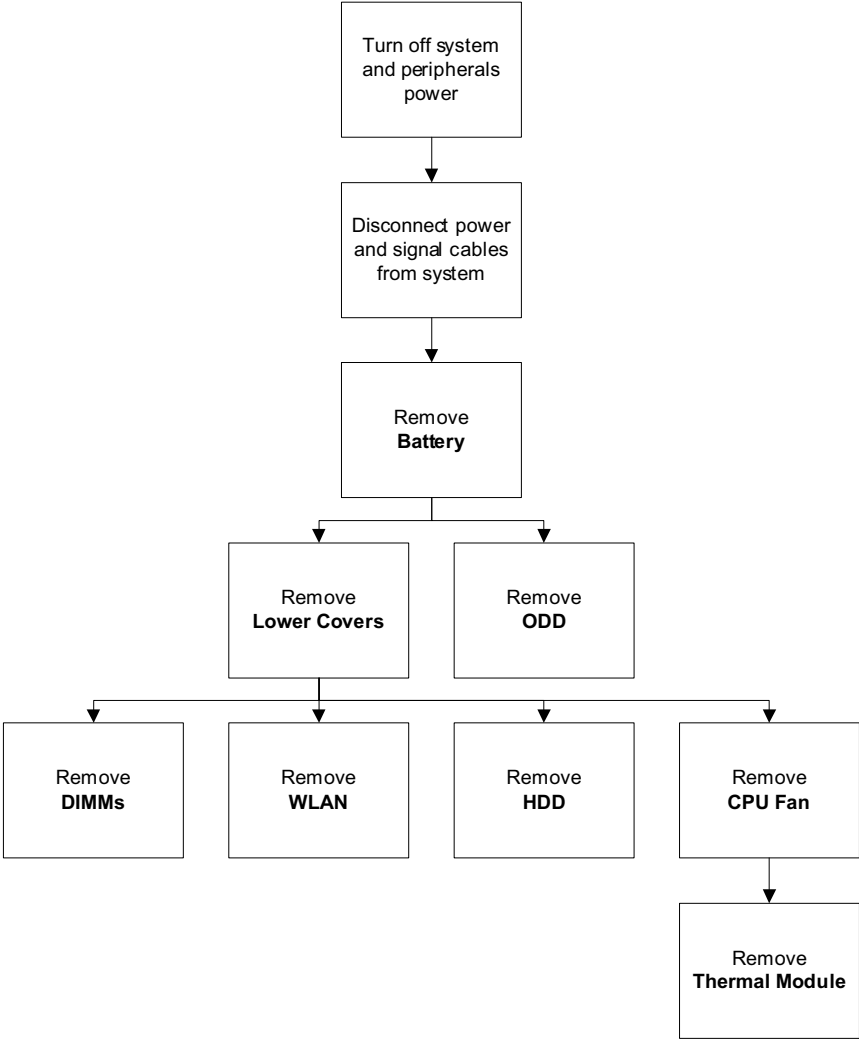
Screw	Quantity	Part Number
M2.5*3	4	86.N2702.001
M2.5*6	10	86.N2702.002
M2.5*10	24	86.N2702.003
M2.5*15	2	86.N2702.004
M2*2.5	3	86.N2702.005
M3*3	4	86.N2702.006
M2*3	20	86.N2702.007
CPU_SCREW_SPRIN	4	86.N2702.008

External Module Disassembly Process

IMPORTANT:The outside housing and color may vary from the mass produced model.

External Modules Disassembly Flowchart

The flowchart below gives you a graphic representation on the entire disassembly sequence and instructs you on the components that need to be removed during servicing. For example, if you want to remove the main board, you must first remove the keyboard, then disassemble the inside assembly frame in that order.

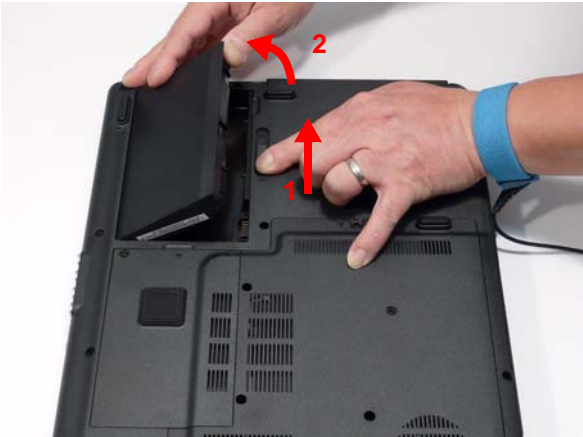


Screw List

Step	Screw	Quantity	Part No.
Memory Cover	M2.5*10	4	86.N2702.003
HDD Cover	M2.5*10	2	86.N2702.003
ODD Module	M2*3	1	86.N2702.007
ODD Bracket	M2*2.5	3	86.N2702.005
WLAN Module	M2*3	2	86.N2702.007
HDD Carrier	M3*3	4	86.N2702.006
CPU Fan	M2.5*10	2	86.N2702.003
Thermal Module	CPU_SCREW_SPRIN	4	86.N2702.008

Removing the Battery Pack

- 1. Turn computer over.
- 2. Slide and hold the battery release latch to the release position (1), then lift out the battery pack from the main unit (2).



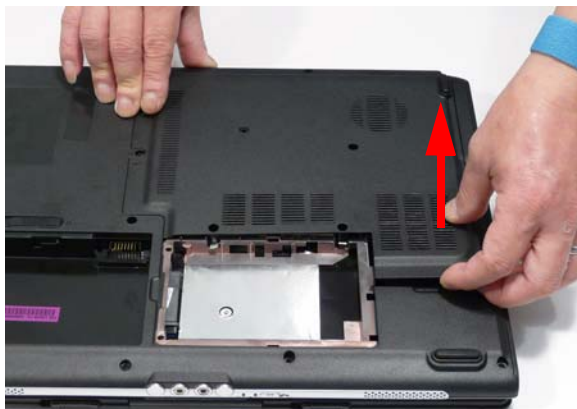
Removing the Lower Covers

- 1. See “Removing the Battery Pack” on page 44.
- 2. Remove the six screws from the memory and HDD covers.



Step	Size	Quantity	Screw Type
Memory Cover	M2.5*10	4	
HDD Cover	M2.5*10	2	

3. Carefully open the memory cover.

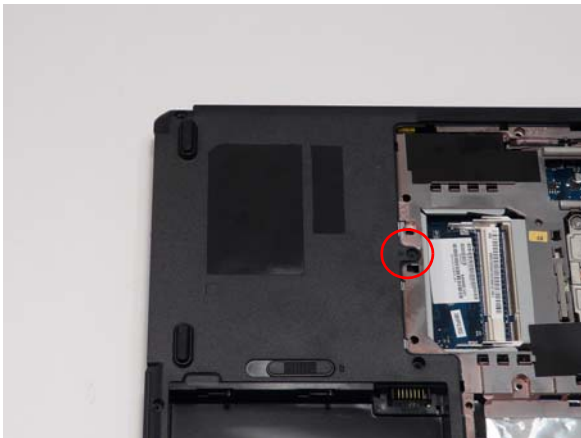



4. Remove the HDD cover as shown.



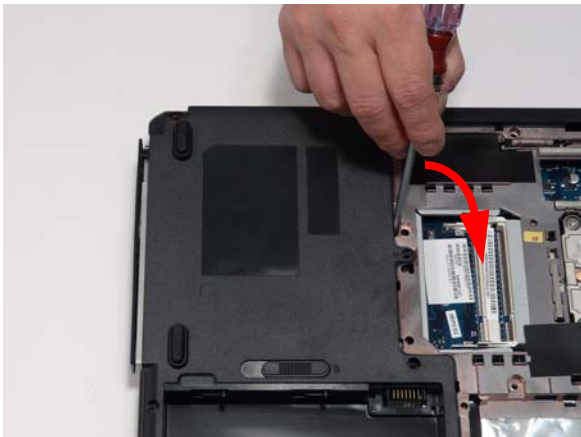
Removing the Optical Drive Module

- 1. See “Removing the Battery Pack” on page 44.
- 2. Remove the screw securing the ODD module.

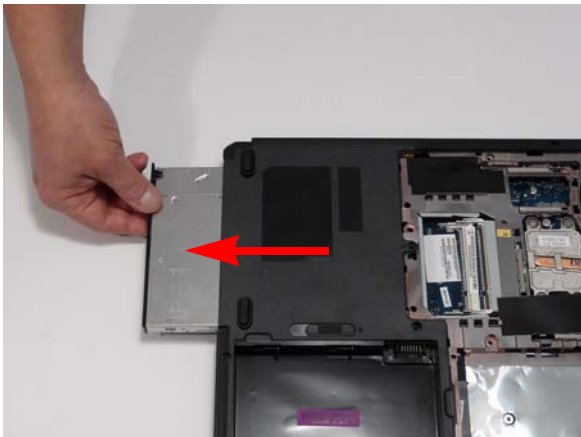


Step	Size	Quantity	Screw Type
ODD Module	M2*3	1	

- 3. Insert a screw driver as shown, and gently lever the ODD module out of the chassis.




- 4. Pull the optical drive module out from the chassis.

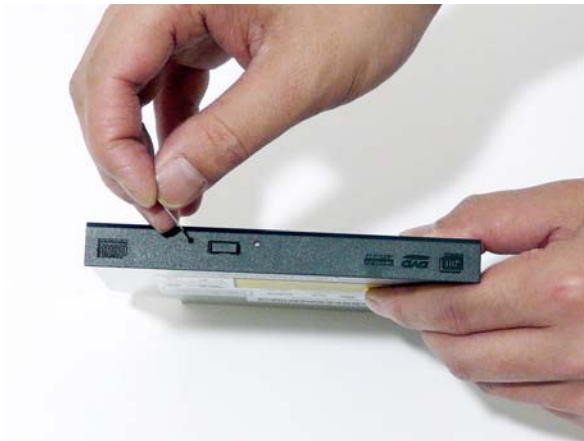


5. Remove the three screws securing the ODD bracket and remove the ODD bracket from the optical disk drive module.

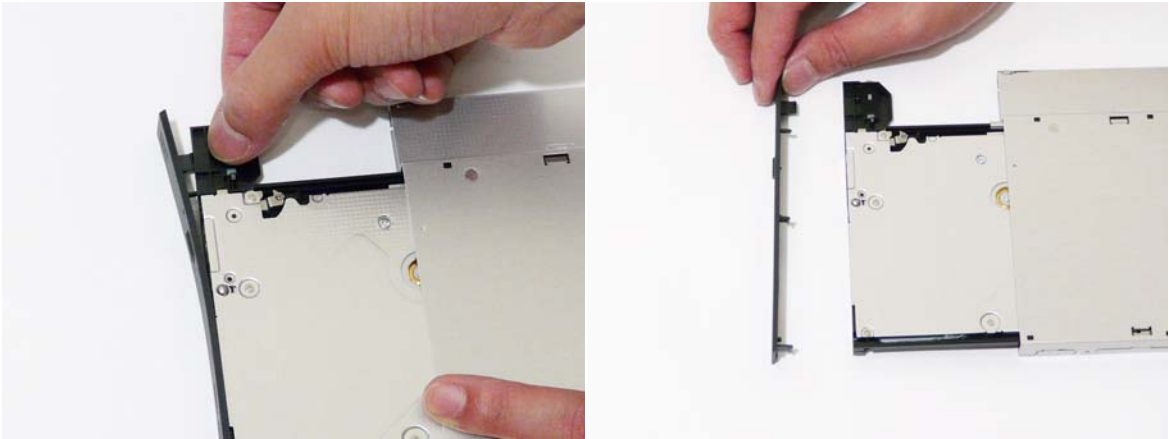


Step	Size	Quantity	Screw Type
ODD Bracket	M2.5*5	3	

6. Insert a pin in the eject hole of the ODD to eject the ODD tray.

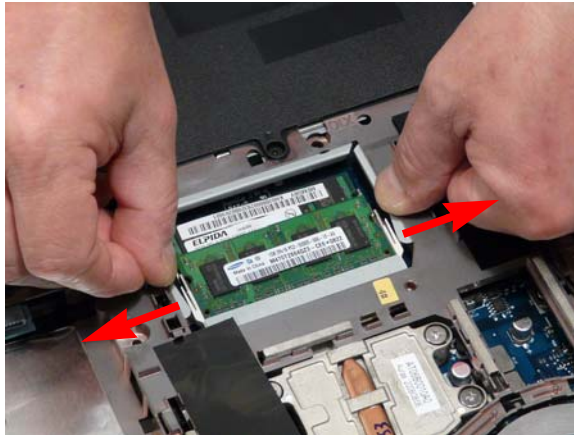


-
7. Press down on the locking catch to release the ODD cover and remove.

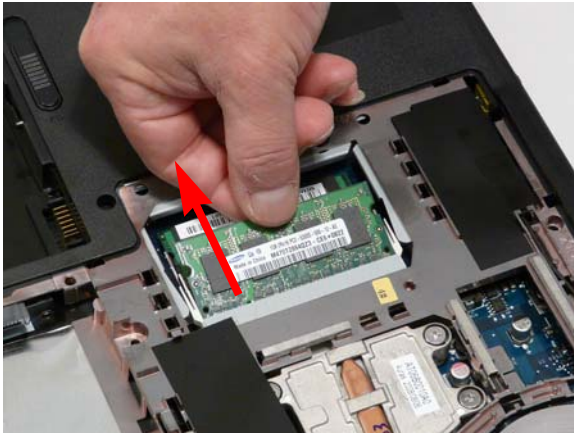


Removing the DIMM Modules

1. See “Removing the Battery Pack” on page 44.
2. Remove the Memory Module cover See “Removing the Lower Covers” on page 44.
3. Push out the release latches on both sides of the DIMM socket to release the DIMM module.



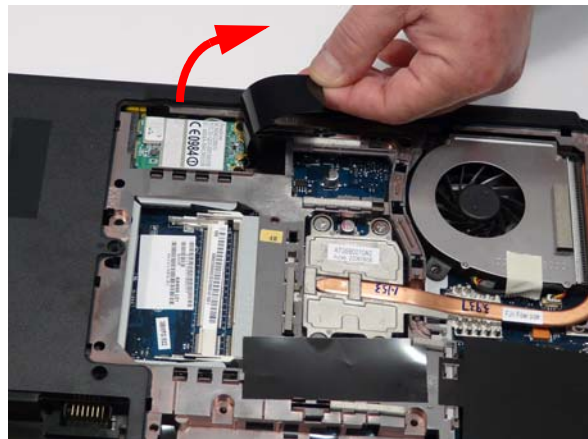
4. Remove the DIMM module.



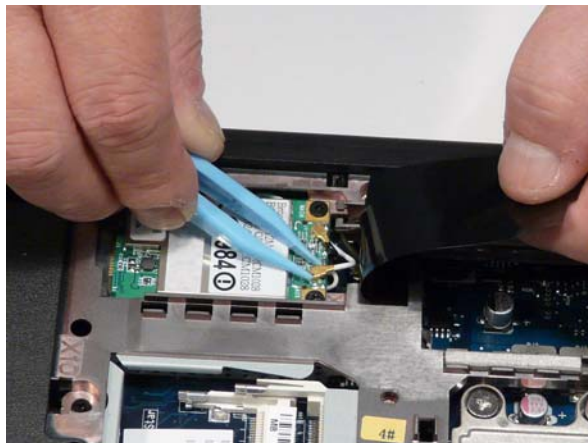
5. Repeat steps for the second DIMM module if present.

Removing the WLAN Module

- 1. See “Removing the Battery Pack” on page 44.
- 2. Remove the Memory cover. See “Removing the Lower Covers” on page 44.
- 3. Pull back the protective cover to expose the WLAN board as shown.




- 4. Disconnect the antenna cables from the WLAN board.

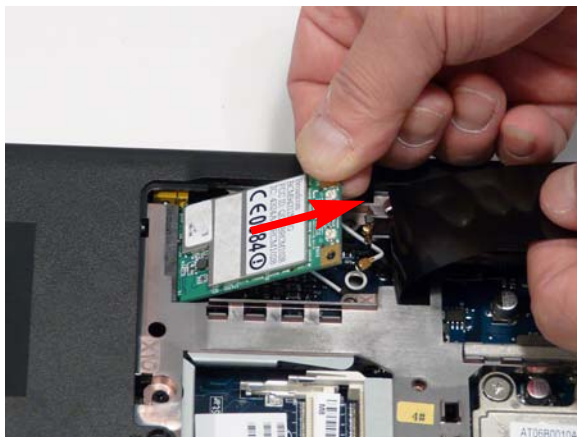


- 5. Move the antenna away and remove the two screws on the WLAN board to release the WLAN board.



Step	Size	Quantity	Screw Type
WLAN Module	M2*3	2	

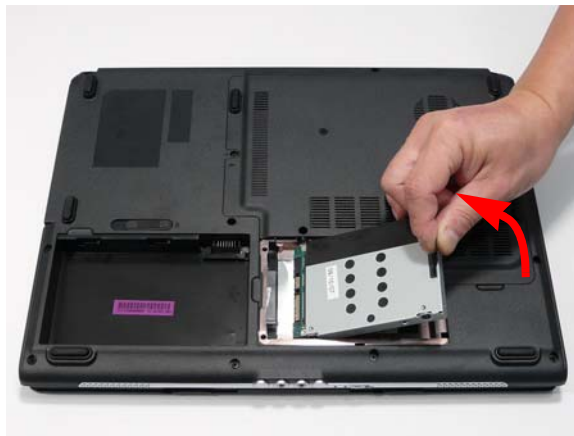
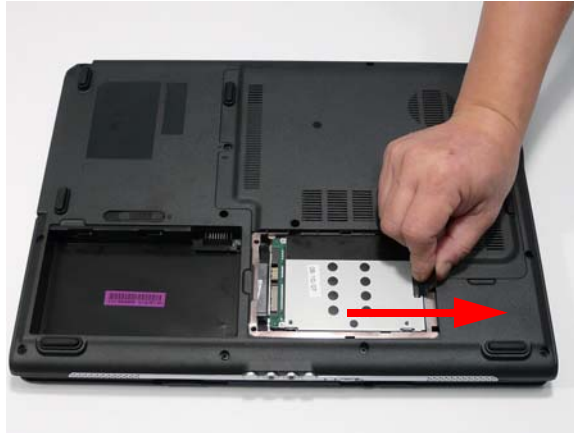
-
6. Detach the WLAN board from the WLAN socket.



NOTE: When reattaching the antennas, ensure the cables are tucked into the chassis to prevent damage.

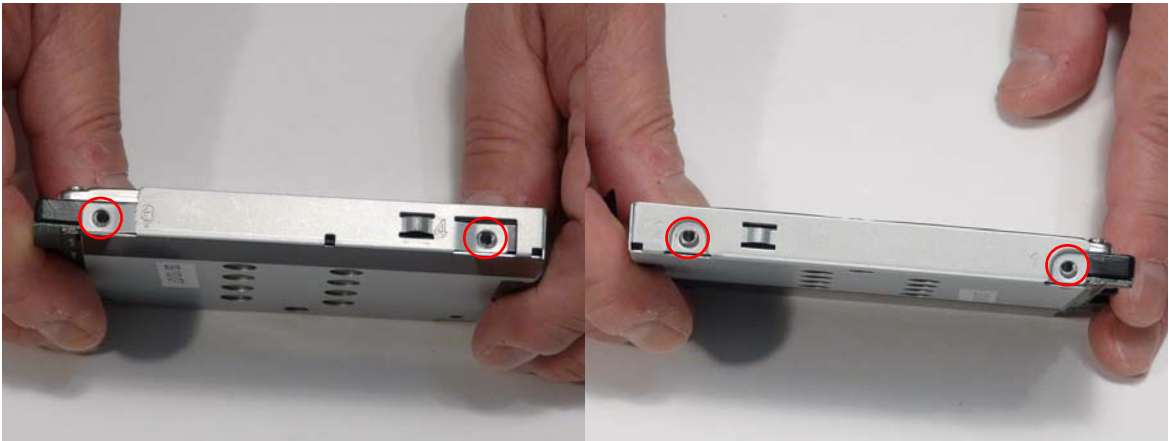
Removing the Hard Disk Drive Module


1. See “Removing the Battery Pack” on page 44.
2. Remove the HDD cover, See “Removing the Lower Covers” on page 44.
3. Use the pull-tab to pull and lift the hard disk drive module out of the bay.



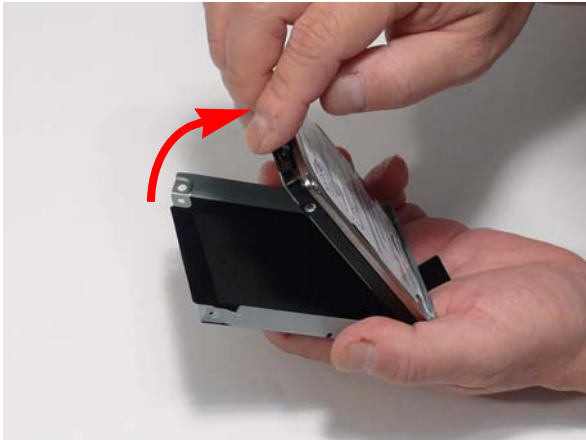
NOTE: To prevent damage to device, avoid pressing down on it or placing heavy objects on top of it.

4. Remove the four screws securing the hard disk to the carrier in reverse numerical order, from 4 to 1.



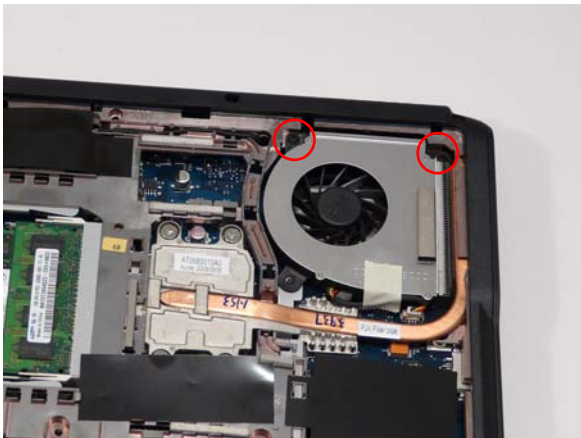
Step	Size	Quantity	Screw Type
HDD Carrier	M3*3	4	


5. Remove the HDD from the carrier.



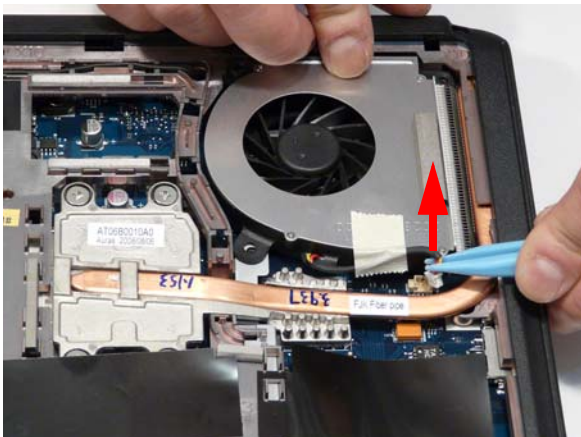
Removing the CPU Fan

- 1. See “Removing the Lower Covers” on page 44.
- 2. Remove the two screws securing the CPU Fan to the mainboard.

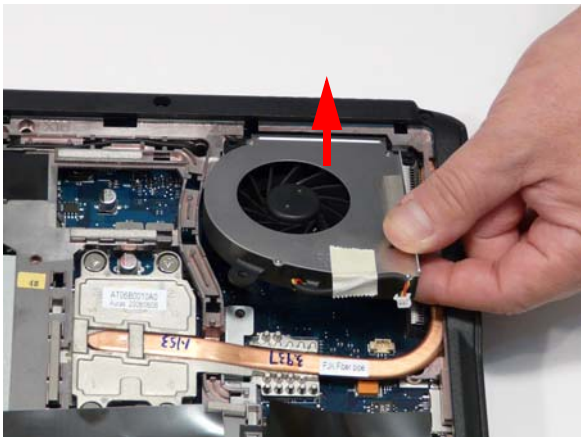


Step	Size	Quantity	Screw Type
CPU Fan	M2.5*10	2	

- 3. Disconnect the CPU Fan cable from the mainboard.

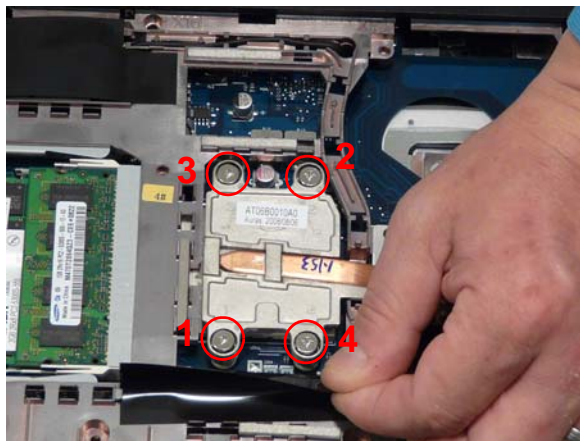



- 4. Lift the CPU Fan clear of the chassis.



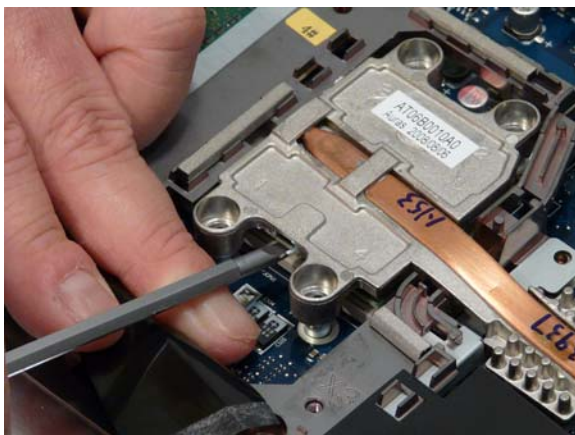
Removing the Thermal Module

1. See "Removing the CPU Fan" on page 54.
2. Peel back the protective cover to expose the Thermal Module. Remove the four securing screws (in reverse numerical order from screw 4 to screw 1) from the Thermal Module.

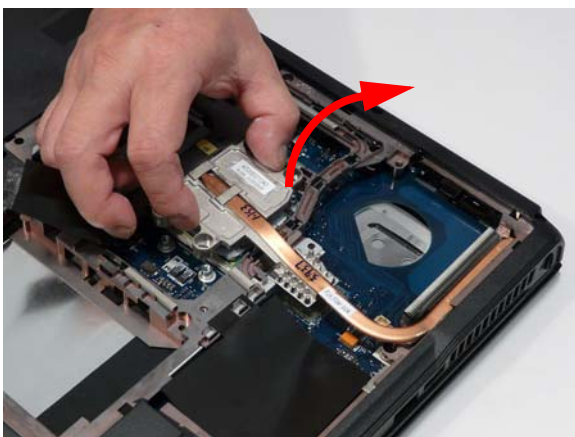


Step	Size	Quantity	Screw Type
Thermal Module	CPU_SCREW_SPRIN	4	

3. Insert a screw driver under the Thermal Module, as shown, and gently separate the module from the CPU.

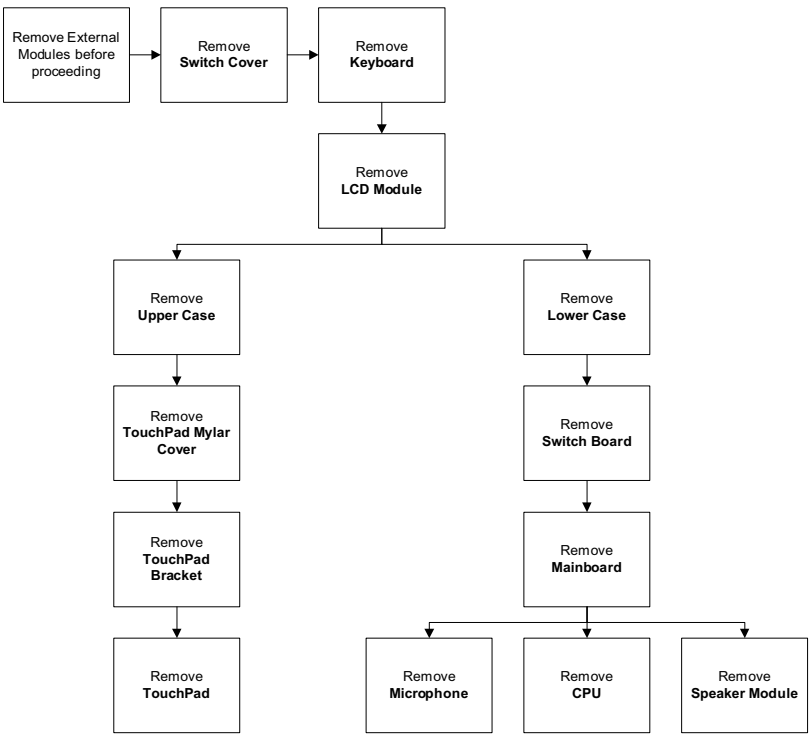


4. Lift the Thermal Module clear of the Mainboard.



Main Unit Disassembly Process

Main Unit Disassembly Flowchart



Screw List

Step	Screw	Quantity	Part No.
Keyboard	M2*3	2	86.N2702.007
LCD Module	M2.5*10	4	86.N2702.003
	M2.5*15	2	86.N2702.004
Upper Cover	M2.5*10	12	86.N2702.003
	M2.5*6	1	86.N2702.002
TouchPad Bracket	M2*3	1	86.N2702.007
Mainboard	M2*3	5	86.N2702.007
	M2.5*3	1	86.N2702.001
Speaker Module	M2.5*6	1	86.N2702.002
	M2.5*3	1	86.N2702.001

Removing the Switch Cover

CAUTION: Using tools to remove the Switch Cover may cause damage to the outer casing. It is recommended that you only use your fingers to remove the Switch Cover.

1. See “Removing the Battery Pack” on page 44.
2. Lift the Switch Cover from the right side first as shown.

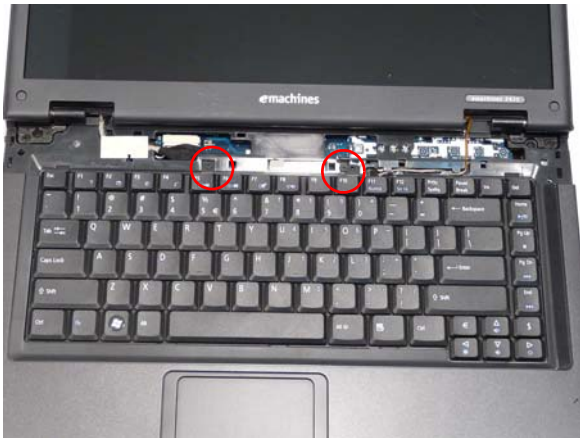



3. Lift the Switch Cover clear of the chassis.



Removing the Keyboard

- 1. See “Removing the Switch Cover” on page 57.
- 2. Remove the two securing screws from the keyboard as shown.



Step	Size	Quantity	Screw Type
Keyboard	M2*3	2	

- 3. Lift the keyboard away from the chassis as shown.



- 4. Move the keyboard toward the LCD panel to expose the FFC cable.



-
5. Open the cable retainer and disconnect the FFC cable from the mainboard.




6. Lift the keyboard clear of the chassis.

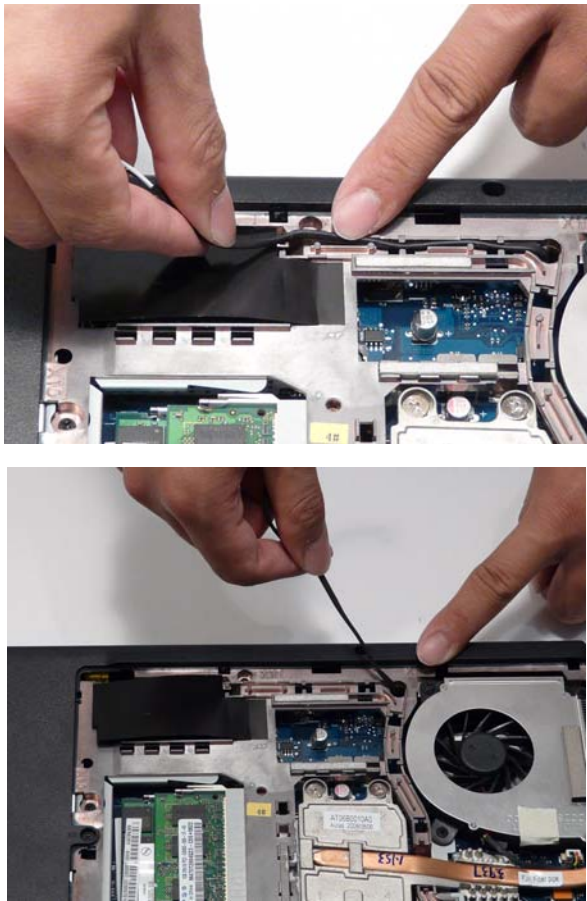
Removing the LCD Module

- 1. See “Removing the Battery Pack” on page 44.
- 2. See “Removing the Keyboard” on page 58.
- 3. Remove the two securing screws from the bottom of the chassis.

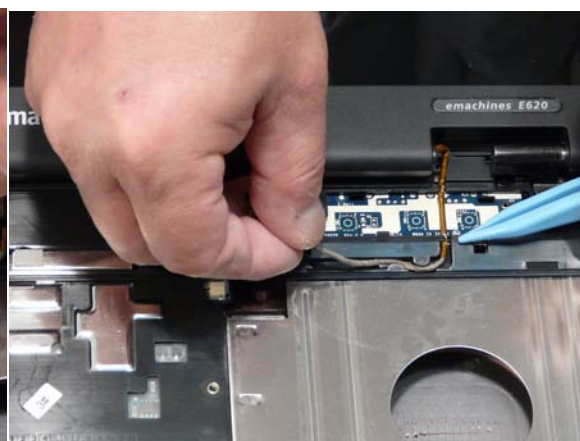
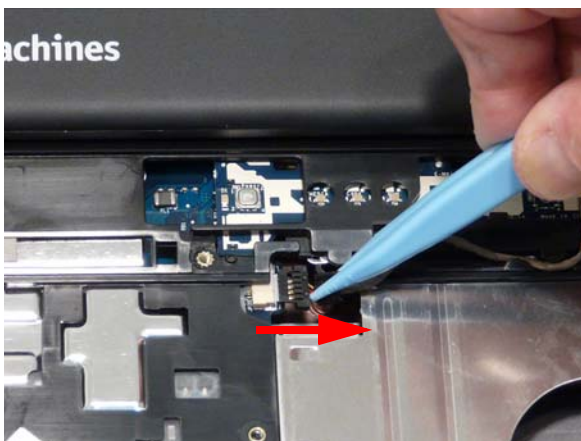
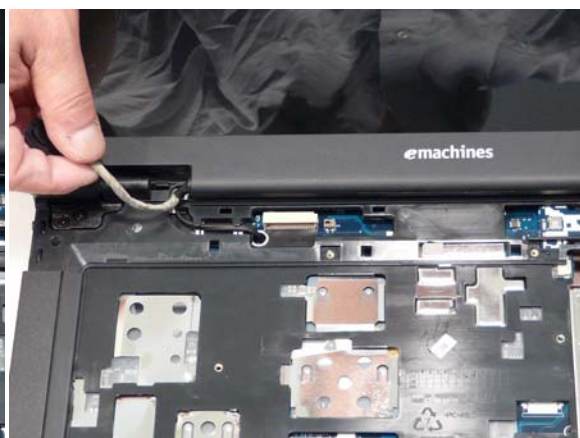
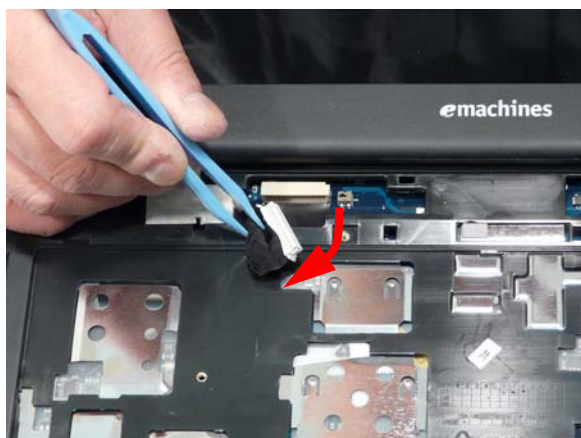
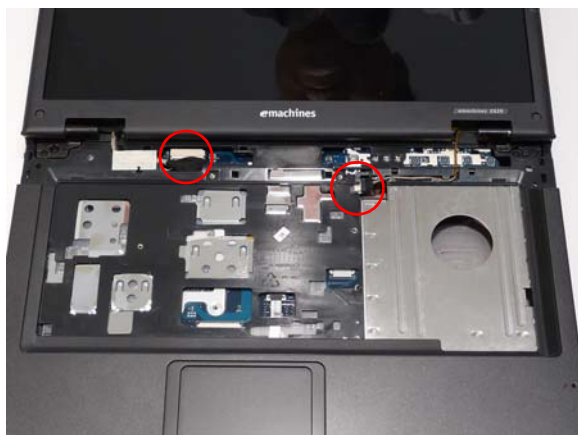


Step	Size	Quantity	Screw Type
LCD Module	M2.5*10	2	

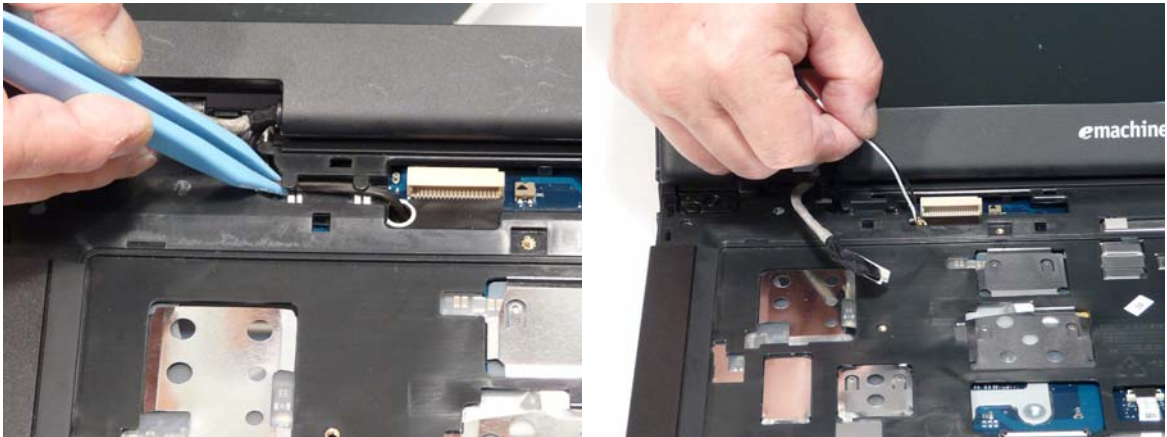
- 4. Remove the Antenna Cables from the cable channel as shown.



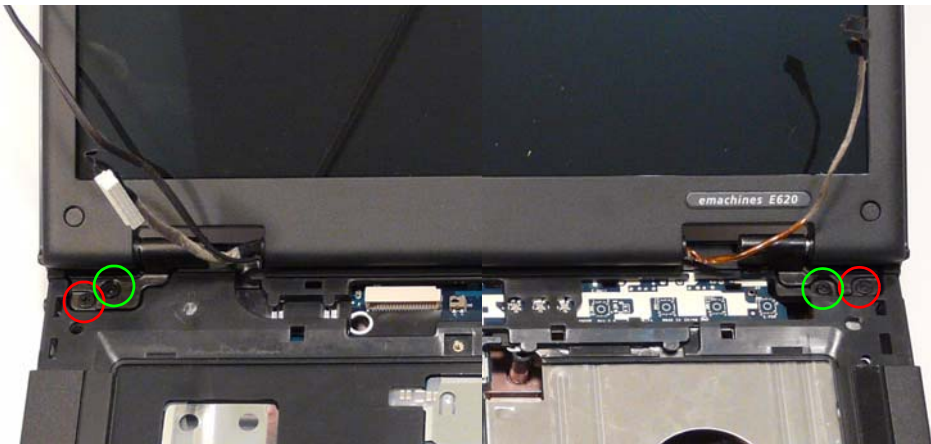
5. Turn the computer over. Disconnect the power and camera cables from the mainboard.





6. Remove the antenna cable from the cable channel and pull it all the way through the chassis as shown.

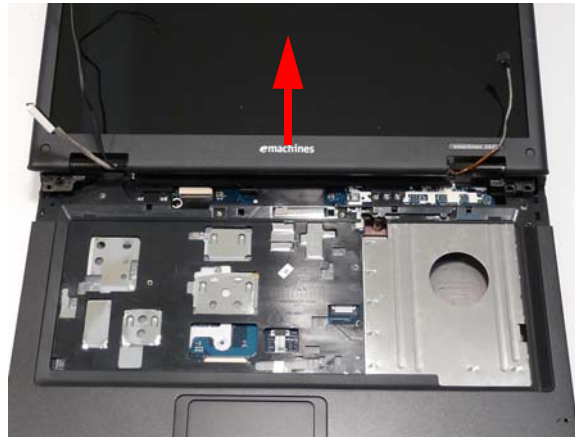


7. Remove the four securing screws (two each side) from the LCD module.



Step	Size	Quantity	Screw Type
LCD Module (red callout)	M2.5*15	2	
LCD Module (green callout)	M2.5*10	2	



-
8. Carefully remove the LCD module from the chassis.



Removing the Upper Cover


- 1. See “Removing the Battery Pack” on page 44.
- 2. See “Removing the LCD Module” on page 60.
- 3. Turn the computer over. Remove the eleven screws on the bottom panel.



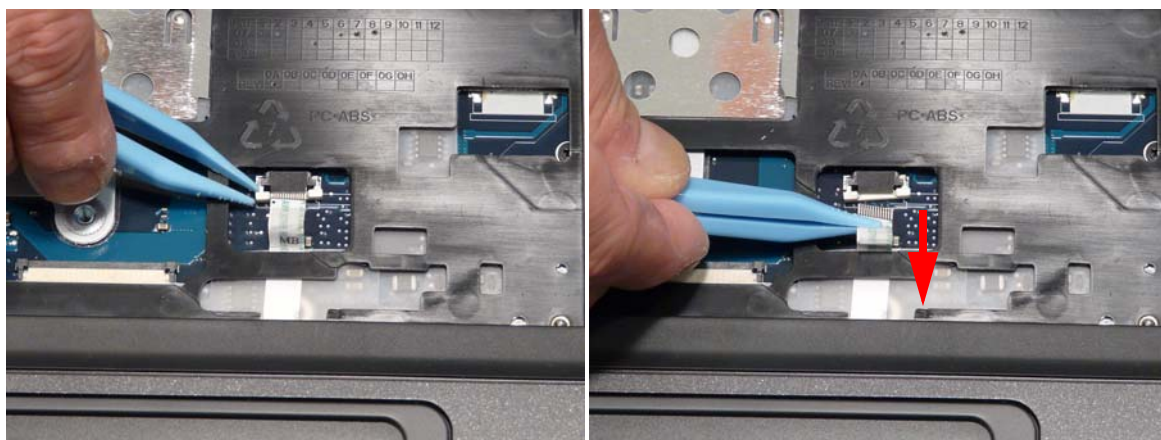
Step	Size	Quantity	Screw Type
Upper Cover (red callout)	M2.5*10	10	
Upper Cover (green callout)	M2.5*6	1	

- 4. Turn the computer over. Remove the two screws on the top panel.



Step	Size	Quantity	Screw Type
Upper Cover	M2.5*10	2	

5. Disconnect the TouchPad cable from the mainboard as shown.



NOTE: Avoid pulling on cables directly to prevent damage to the connectors.

NOTE: Use the pull-tabs on FFC cables whenever available to prevent damage.

6. Starting on the left side of the casing, pry the upper and lower cases apart as shown.



7. Work along the casing toward the right side, prying apart the casing.

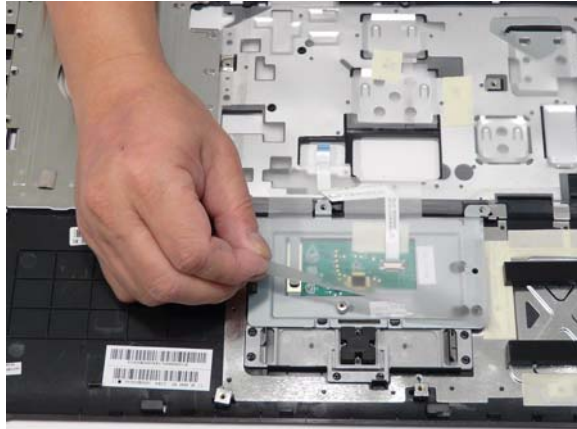


8. Remove the upper cover as shown.

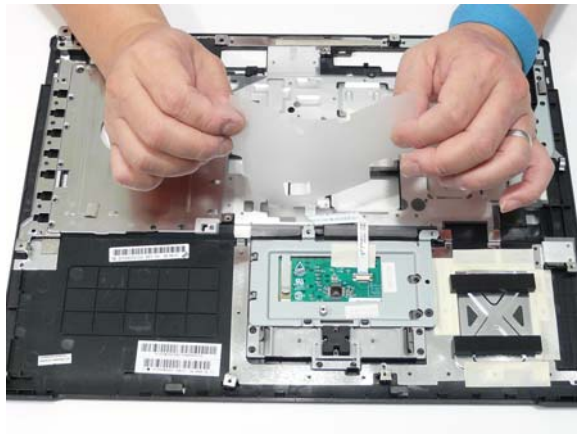


Removing the TouchPad Mylar Cover

1. See “Removing the Upper Cover” on page 64.
2. Gently peel the protective cover away from the TouchPad Bracket as shown.

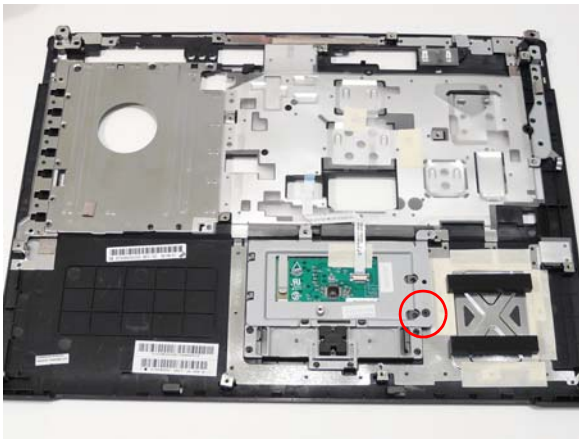



3. Remove the mylar from the upper cover as shown.



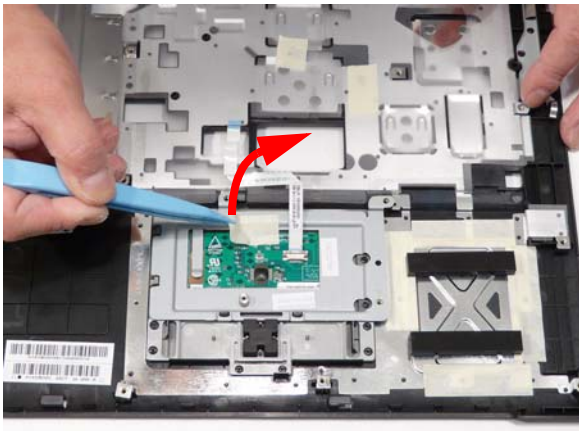
Removing the TouchPad Bracket

- 1. See “Removing the TouchPad Mylar Cover” on page 67.
- 2. Remove the single screw from TouchPad bracket.

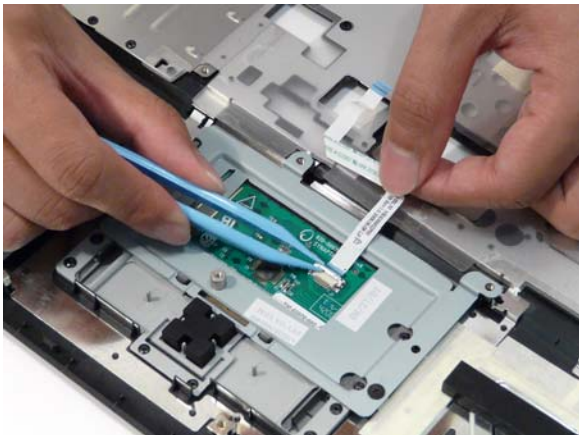


Step	Size	Quantity	Screw Type
TouchPad Bracket	M2*3	1	

- 3. Remove the adhesive strip from the TouchPad as shown.



- 4. Release the FFC locking latch and remove the TouchPad FFC from the chassis.

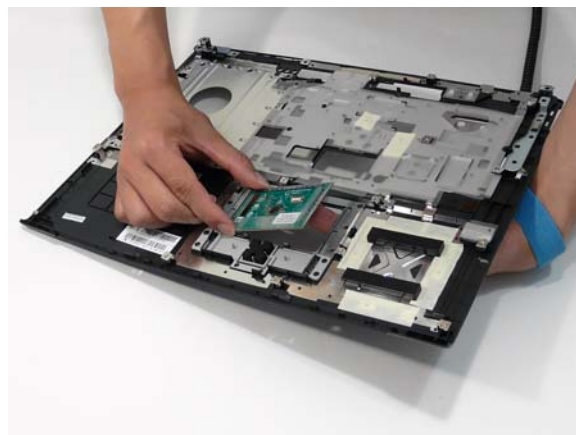


-
5. Lift the right edge of the TouchPad bracket first to clear the securing clips and remove it as shown.



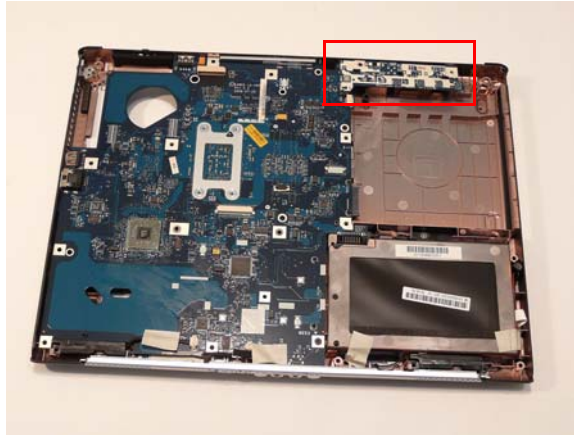
Removing the TouchPad

1. See "Removing the TouchPad Bracket" on page 68.
2. Push the TouchPad upward from underneath the casing as shown.

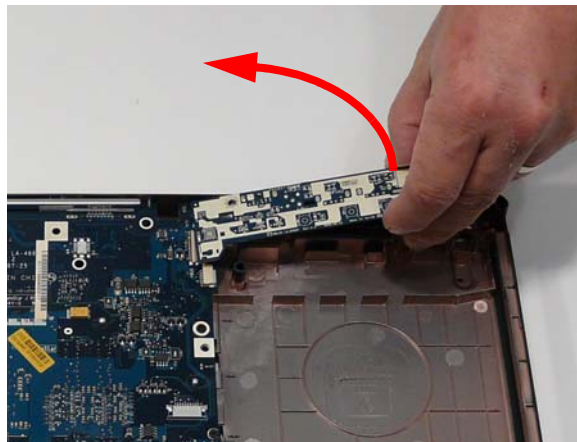


Removing the Switch Board

1. See See "Removing the Upper Cover" on page 64.
2. Locate the Switch Board at the rear of the chassis.

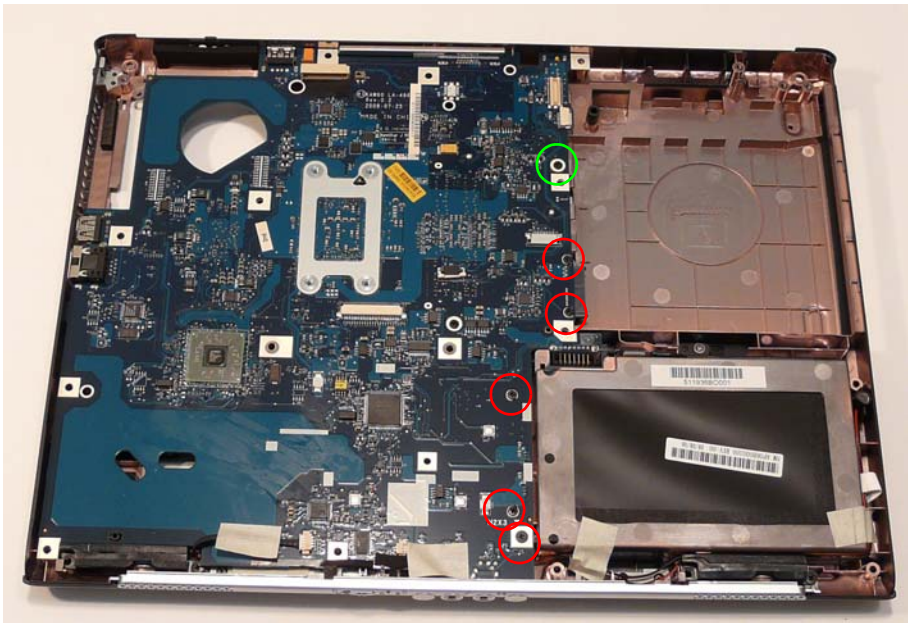




3. Lift the Switch Board upward to disconnect the interface and remove it from the chassis.



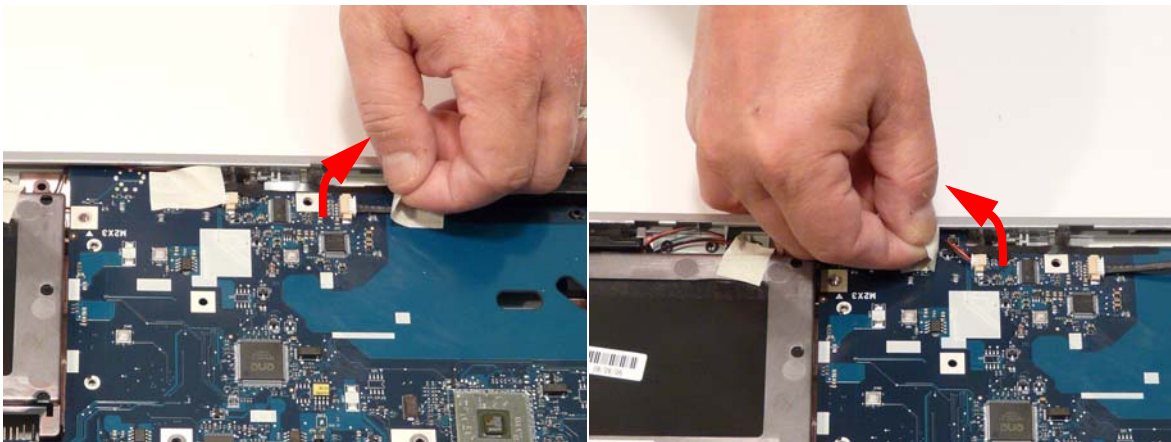
Removing the Mainboard

- 1. See “Removing the Switch Board” on page 70.
- 2. Remove the six securing screws from the Mainboard.

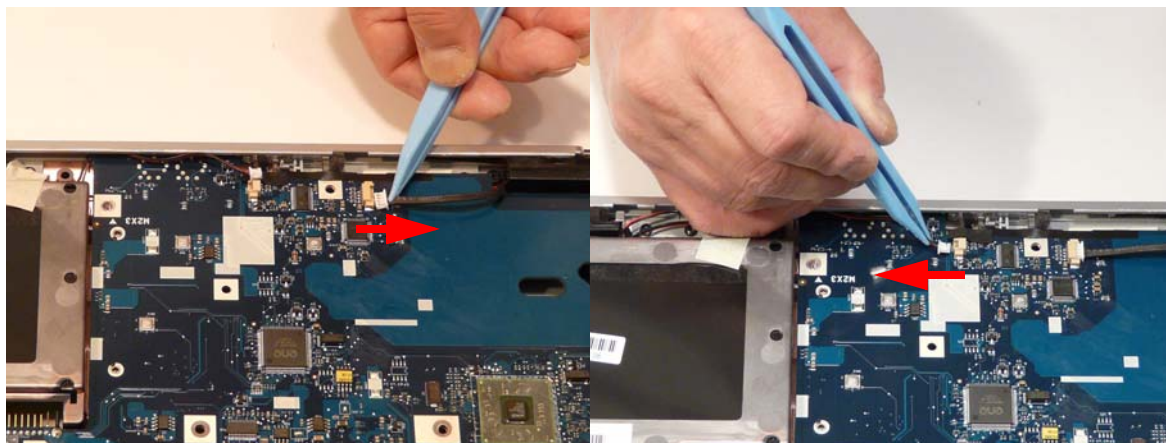


Step	Size	Quantity	Screw Type
Mainboard (red callout)	M2*3	5	
Mainboard (green callout)	M2.5*3	1	

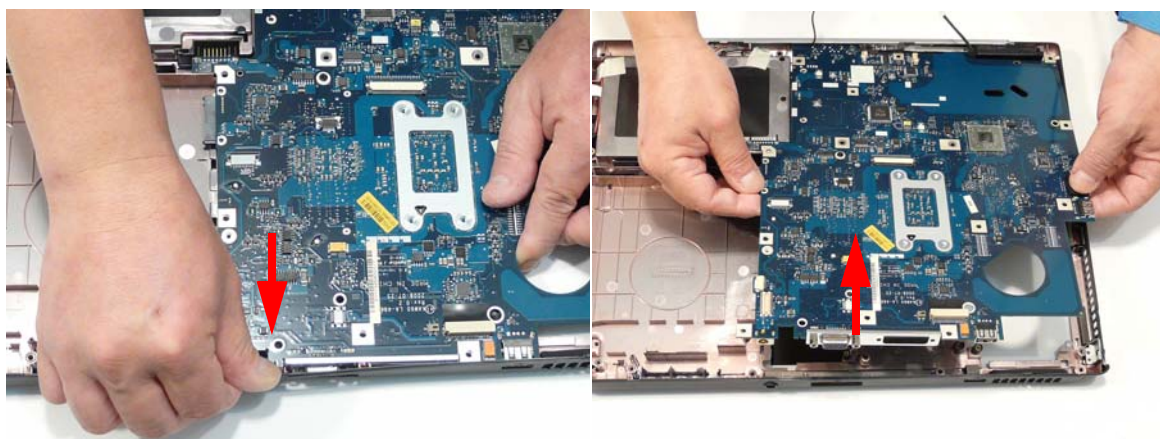
- 3. Remove the two adhesive strips from the Speaker and MIC connectors.



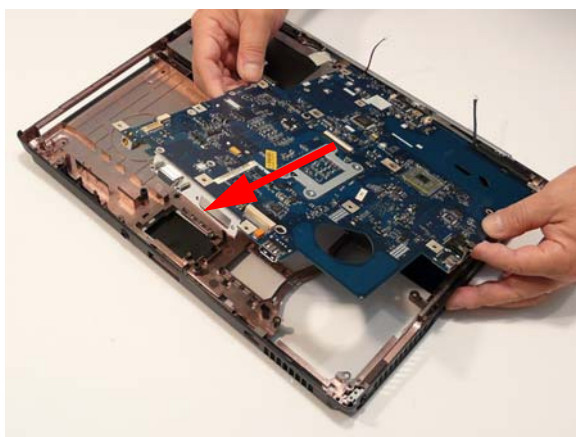
4. Disconnect the Speaker and MIC cables as shown.



5. Ease out the casing to release the I/O ports from the rear of the chassis and lift the mainboard upward.

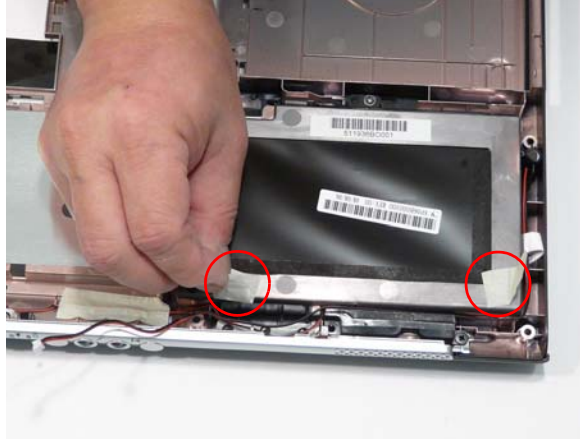


6. Remove the mainboard from the chassis, in the direction of the arrow, and place it on a clean, dust-free surface.



Removing the Internal Microphone

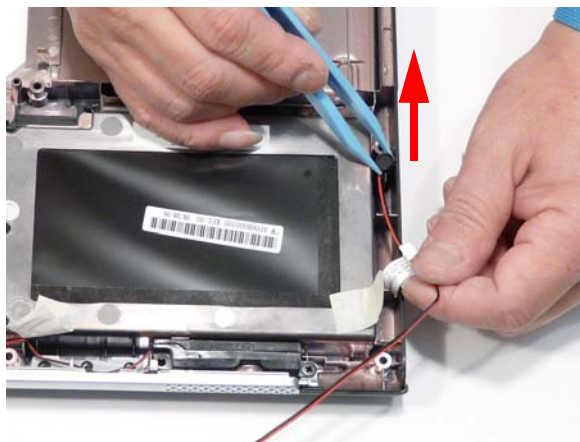
1. See See “Removing the Mainboard” on page 71.
2. Remove the adhesive strips holding the MIC cable in place.



3. Remove the cable from the cable channel as shown.

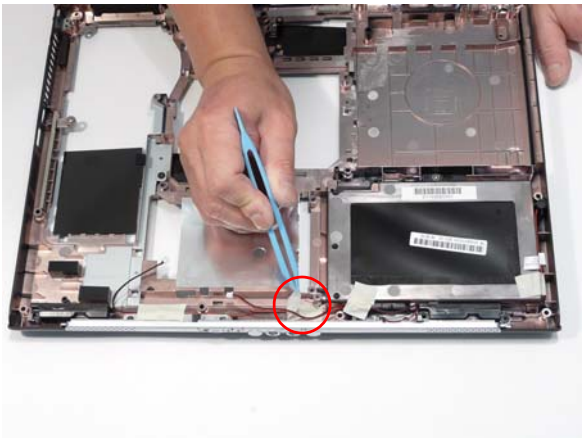


4. Remove the MIC from the chassis as shown.

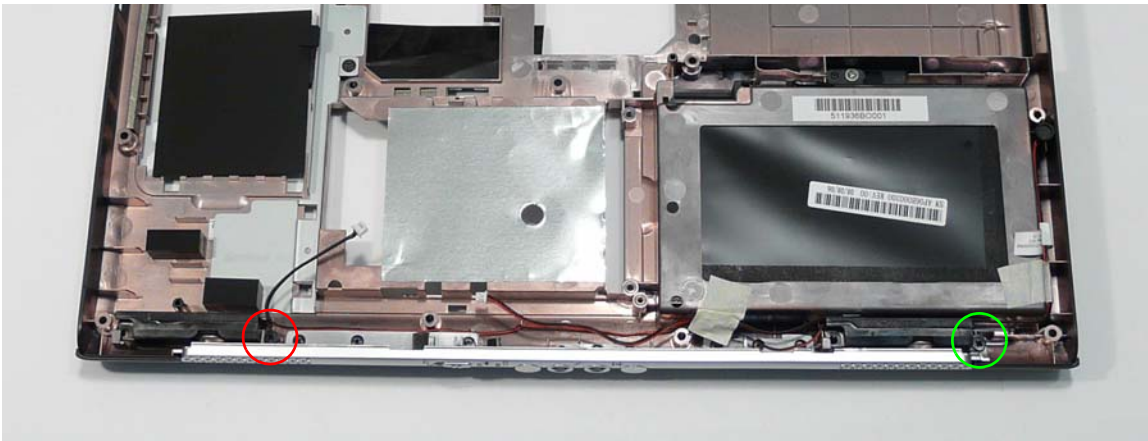




Removing the Speaker Module

- 1. See “Removing the Mainboard” on page 71.
- 2. Remove the adhesive tape from the speaker cable.

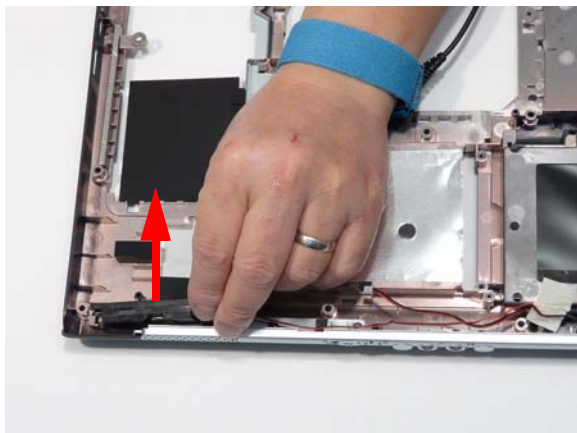


- 3. Remove the two screws from the speaker modules.
NOTE: The left and right speaker module securing screws differ slightly in length. Ensure the correct screw is used for each speaker.

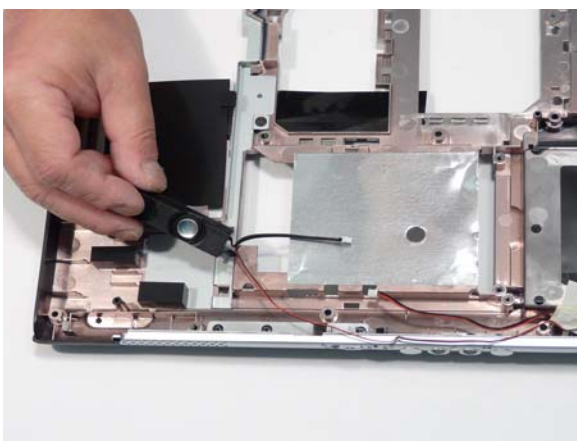


Step	Size	Quantity	Screw Type
Left Speaker Module (red callout)	M2.5*3	1	
Right Speaker Module (green callout)	M2.5*6	1	

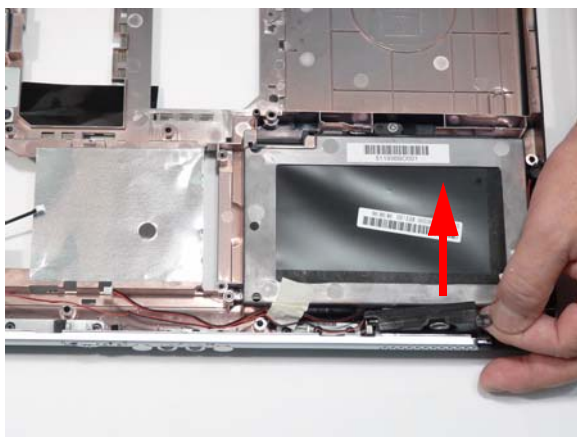
-
4. Remove the left side speaker from the chassis as shown.



5. Ensure the speaker cable is clear of any obstructions or adhesive strips.



6. Remove the right side speaker from the chassis and lift the entire speaker assembly clear of the chassis.



Removing the CPU

1. See “Removing the Thermal Module” on page 55.
2. Pull the CPU socket release lever outward to clear the securing clips.

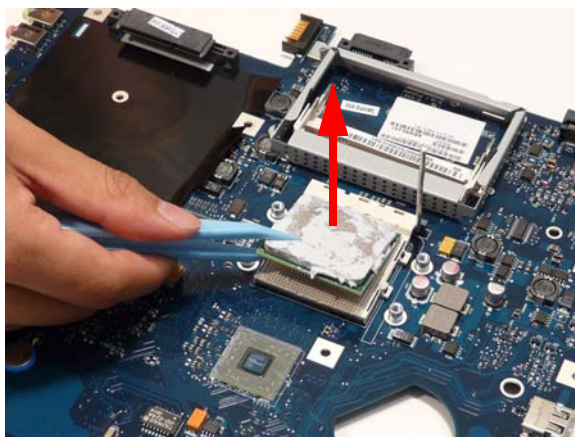


3. Lift the CPU socket release lever to the vertical position as shown.



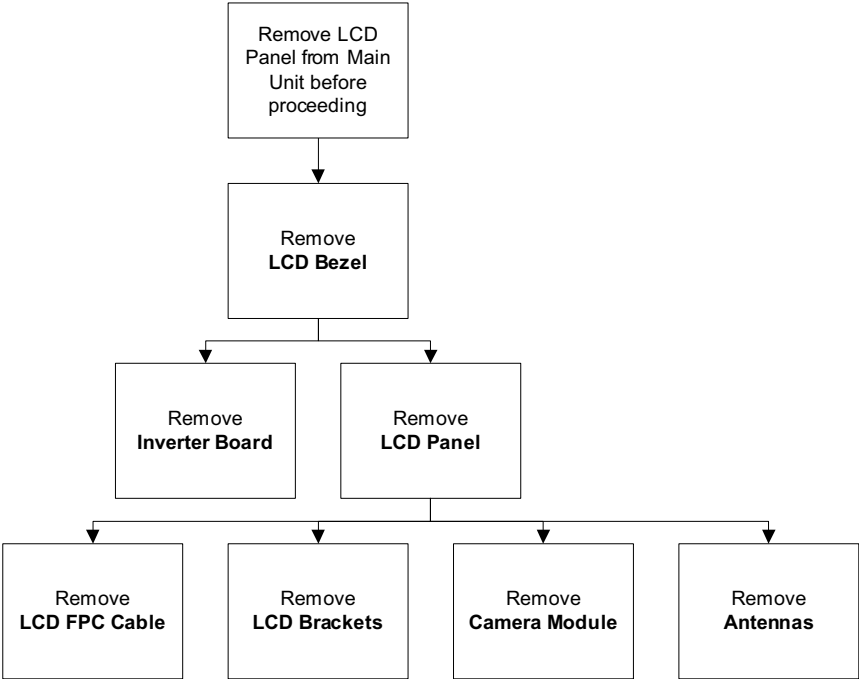
4. Remove the CPU from the socket as shown.

IMPORTANT: The pins on the underside of the CPU are very delicate. If they are damaged, the CPU may malfunction. Place the CPU on a clean, dry surface when it is not installed.



LCD Module Disassembly Process

LCD Module Disassembly Flowchart




Screw List

Step	Screw	Quantity	Part No.
LCD Bezel	M2.5*6	4	86.N2702.002
Inverter Board	M2.5*6	2	86.N2702.002
Camera Module	M2*3	1	86.N2702.007
LCD Panel	M2.5*6	2	86.N2702.002
LCD Brackets	M2*3	8	86.N2702.007
Antenna	M2.5*3	2	86.N2702.001

Removing the LCD Bezel

- 1. See “Removing the LCD Module” on page 60.
- 2. Remove the two upper and two lower bezel screw caps and screws.



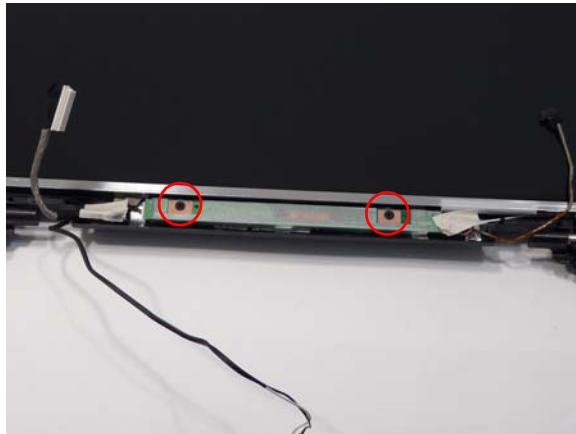
Step	Size	Quantity	Screw Type
LCD Bezel	M2.5*6	4	


- 3. Starting from the lower left side of the bezel, pry the bezel upwards and away from the panel. Move along the top and right until all sides of the bezel are removed.
NOTE: If necessary, use a pry to lift up the outside edges of the bezel.



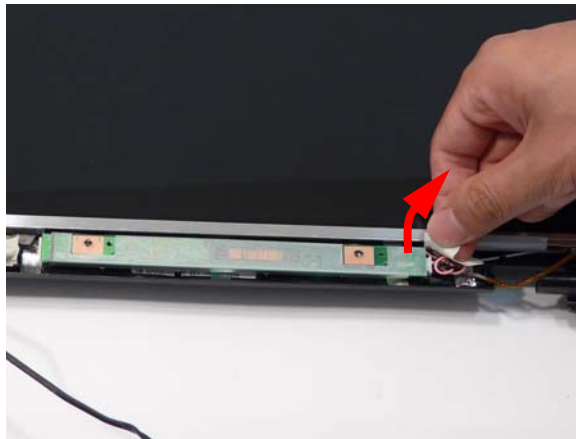
Removing the Inverter Board

1. See “Removing the LCD Bezel” on page 78.
2. Remove the securing screws from the Inverter board.



Step	Size	Quantity	Screw Type
Inverter Board	M2.5*6	2	

3. Remove the adhesive strip from the right side connector.



4. Disconnect the right Inverter board cable as shown.



-
5. Lift the Inverter board clear of the LCD Module and disconnect the left cable.




6. Remove the Inverter board from the LCD module.

Removing the LCD Panel

- 1. See “Removing the Inverter Board” on page 79.
- 2. Remove the two securing screws from the LCD Module.



Step	Size	Quantity	Screw Type
LCD Panel	M2.5*6	2	

- 3. Lift the LCD Panel clear of the LCD Module.



The LCD Module appears as follows when the LCD panel is removed.

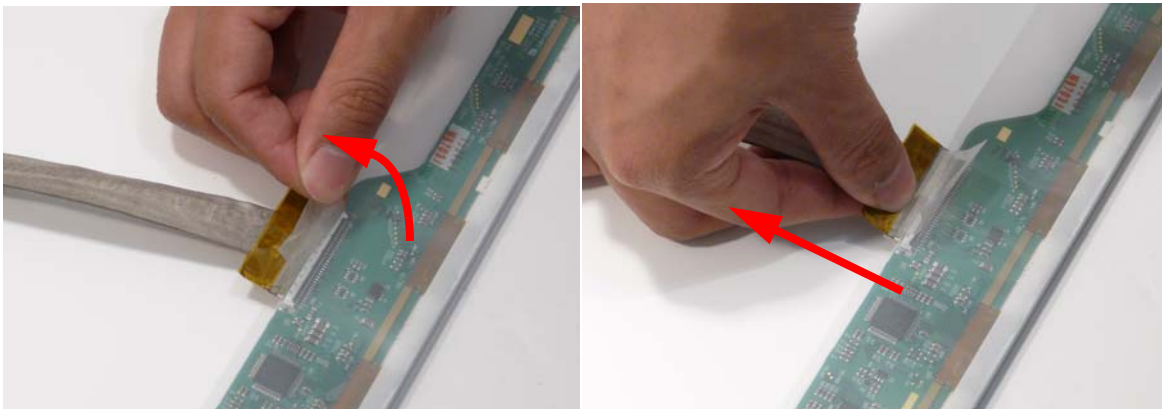


Removing the LCD Brackets and FPC Cable

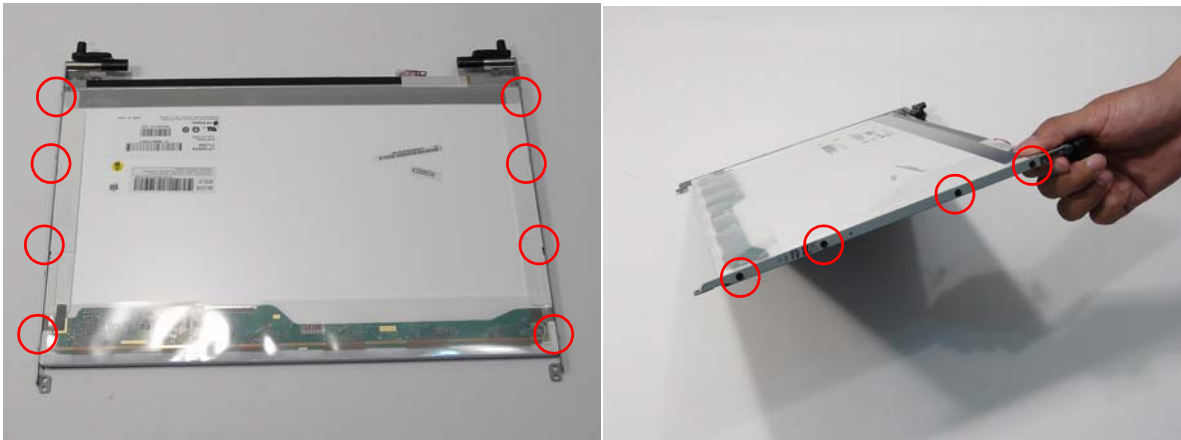
- 1. See “Removing the LCD Panel” on page 81.
- 2. Turn the LCD panel over to expose the rear.




- 3. Lift the adhesive protector and disconnect the cable from the LCD Panel.



- 4. Lift the FPC cable from the panel.
- 5. Remove the eight securing screws (four on each side) from the LCD Panel brackets.

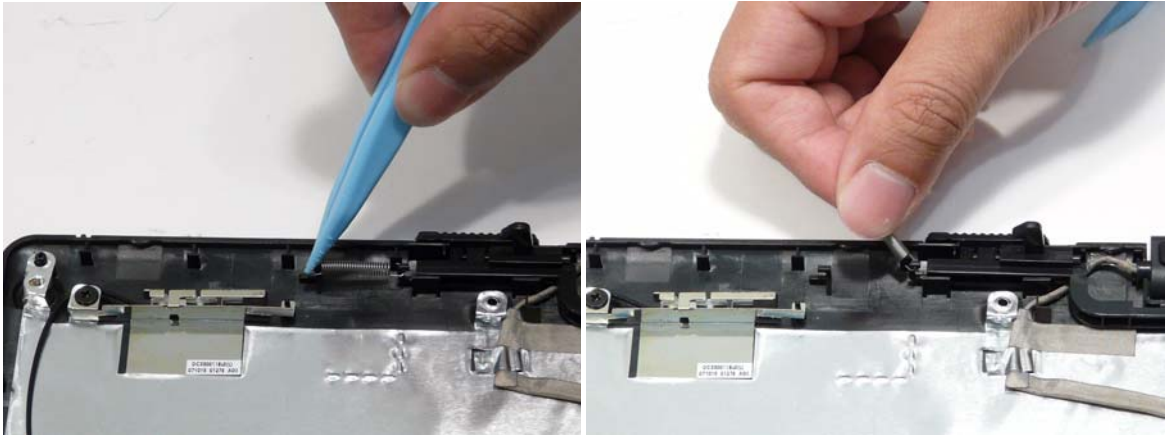


Step	Size	Quantity	Screw Type
LCD Brackets	M2*3	8	

- 6. Remove the LCD brackets by pulling away from the LCD Panel.

Removing the Camera Module

1. See “Removing the LCD Panel” on page 81.
2. Disconnect the Lid Latch spring from the LCD module.



3. Slide the Lid Latch assembly to the left and pull upward to disengage the right side from the module.




4. Slide the Lid Latch to the right and pull upward to disengage the left side from the module.



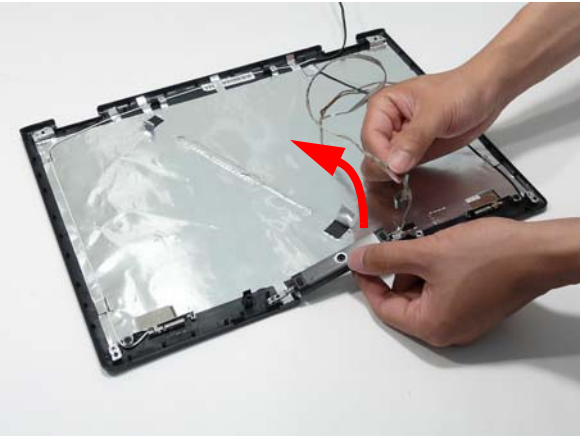
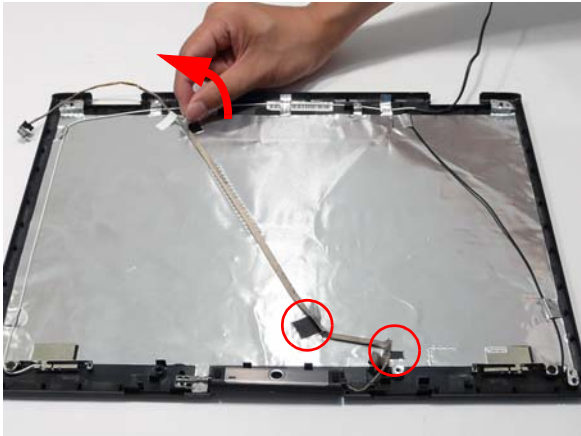
5. Remove the Lid Latch assembly from the module.

6. Remove the single securing screw from the Camera Module.



Step	Size	Quantity	Screw Type
Camera Module	M2*3	1	

7. Peel back the adhesive strips holding the camera cable in place, and remove the camera from the LCD module.




8. Starting at the corner nearest the bracket, pry open the casing and remove the back cover.

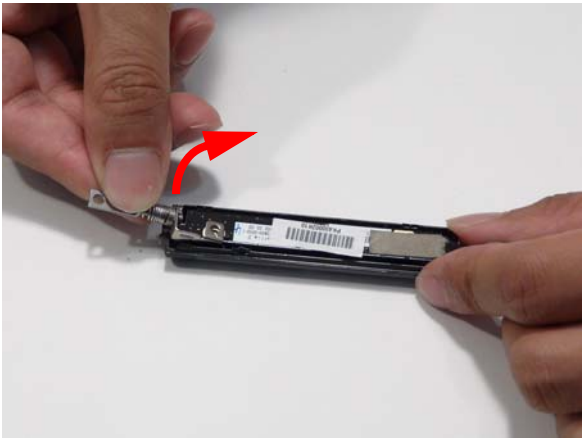


9. Remove the single securing screw from the bracket.

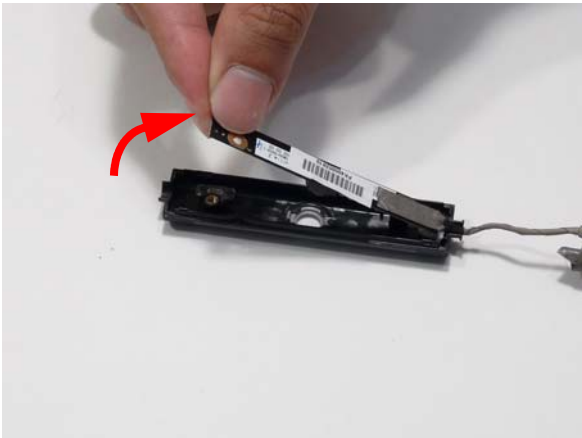


Step	Size	Quantity	Screw Type
Camera Module	M2*3	1	

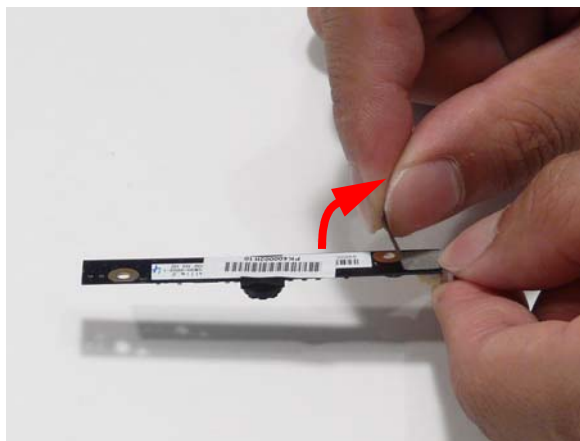
10. Remove the Camera bracket from the board as shown.



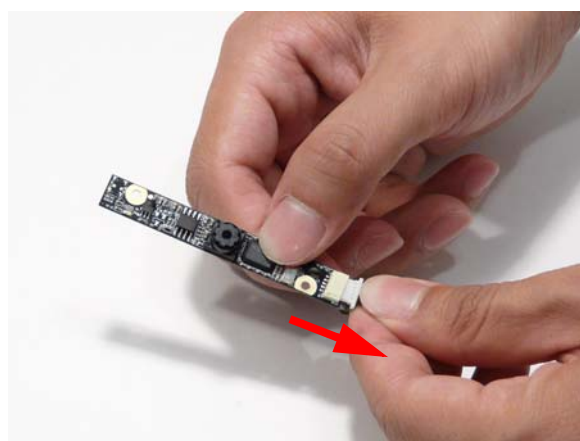
11. Remove the Camera board from the casing as shown.



12. Peel back the adhesive strip securing the cable to the camera module.

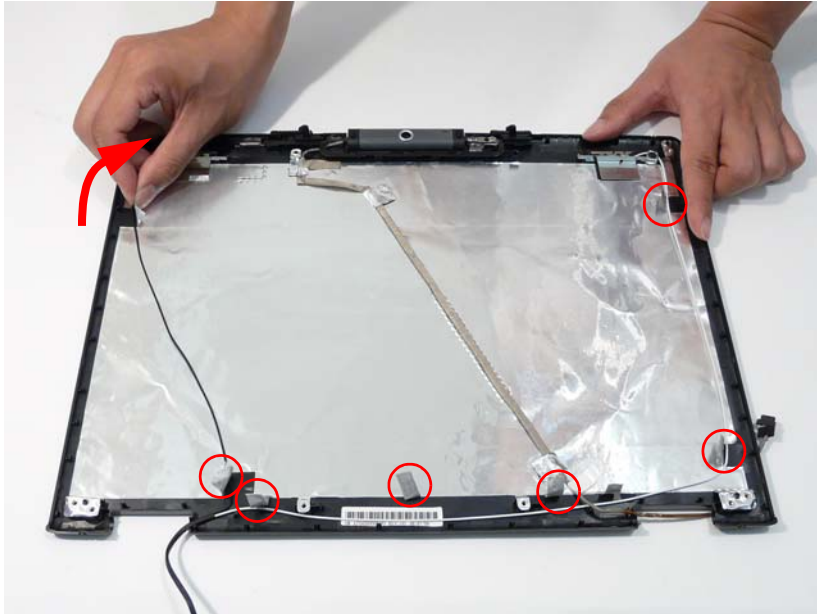


13. Disconnect the camera cable from the module.



Removing the Antennas

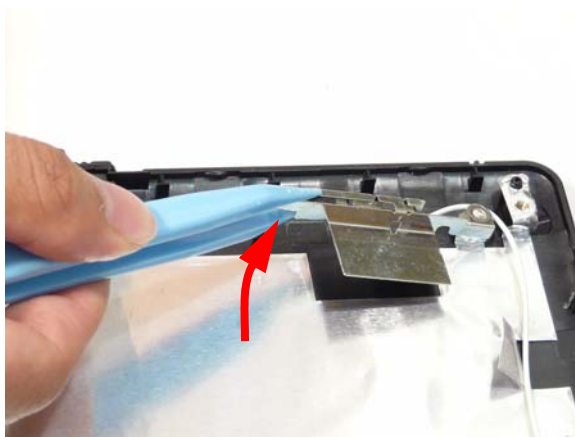
1. See "Removing the LCD Panel" on page 81.
2. Remove the strips holding the antenna cables in place. Ensure the cables are free from obstructions.



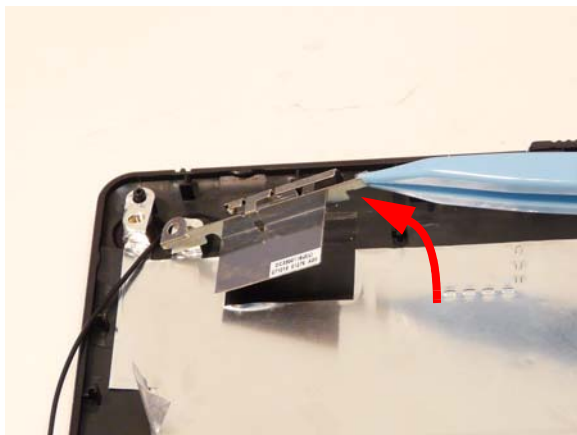
3. Remove the two securing screws (one per antenna) from the left and right antenna.



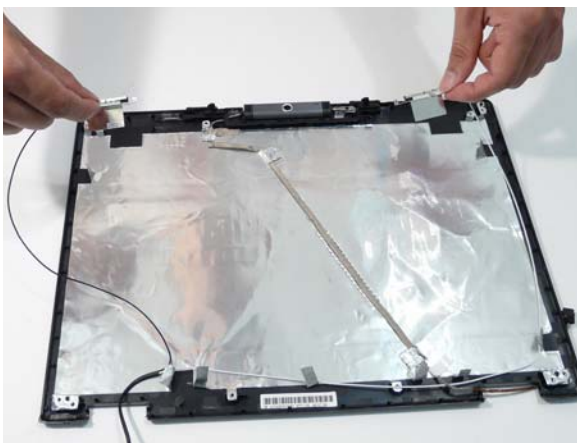
4. Lift the right side antenna from the LCD module as shown.



-
5. Lift the left side antenna from the LCD module as shown.



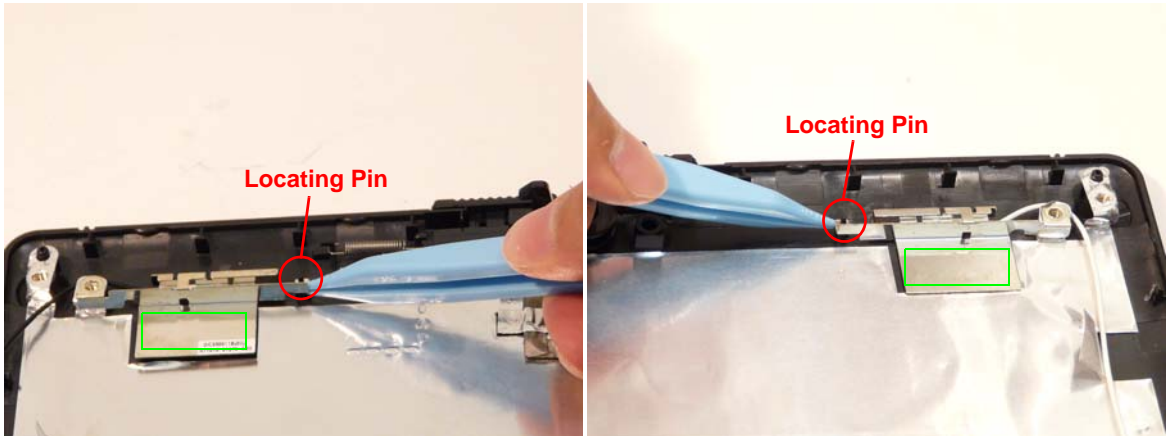
6. Remove the antenna assembly and cables from the LCD module.



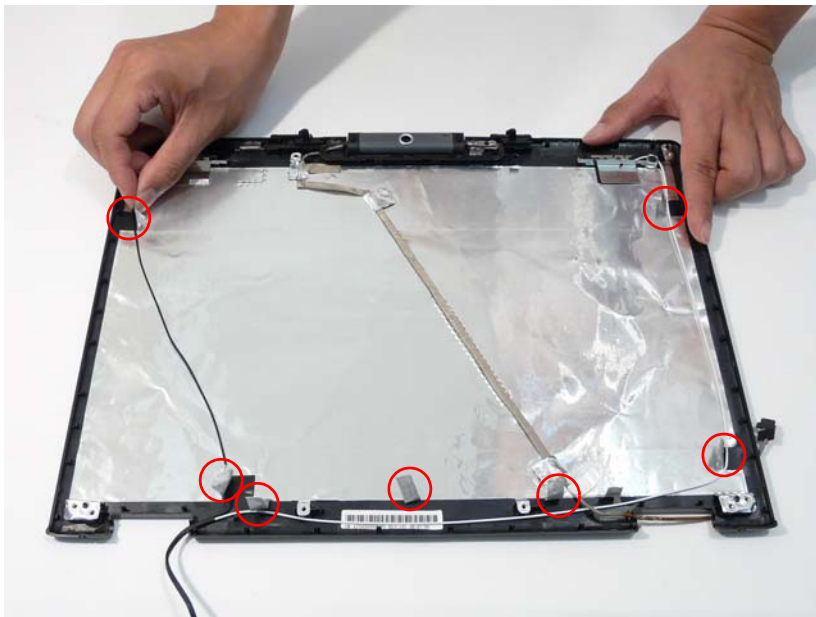
LCD Module Reassembly Procedure

Replacing the Antennas

1. Replace the left and right antennas as shown. Ensure that the locating pin on each antenna is correctly seated. Press down on the adhesive pads (green callout) to secure the antennas in place.



2. Replace the antenna and cables as shown. Ensure that the cable is inserted under each tab strip.

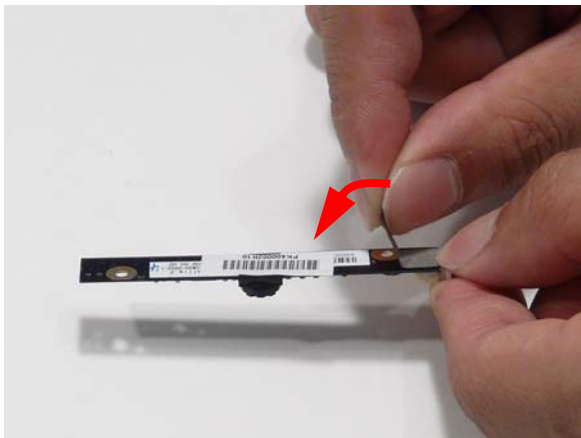
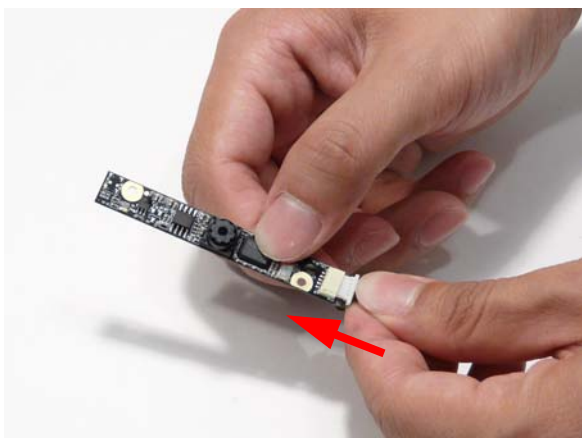


3. Ensure that the cables pass along the cable channel and through the hinge well as shown.

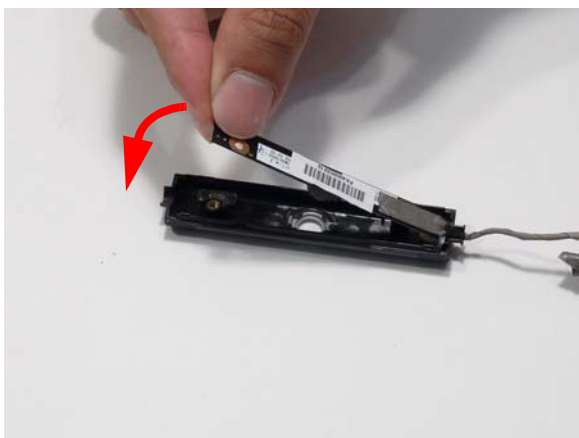


Replacing the Camera

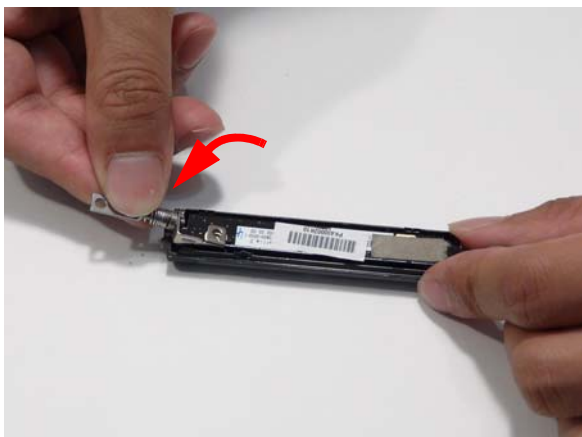
1. Reconnect the camera cable to the module.
2. Replace the adhesive strip securing the cable to the camera module.



3. Replace the Camera board in the casing as shown. Ensure the locating pin is correctly seated.



4. Replace the Camera bracket on the board as shown



5. Replace the single securing screw.



6. Replace the Camera Module back cover as shown. 7. Press down around the edges of the casing to snap it into place.



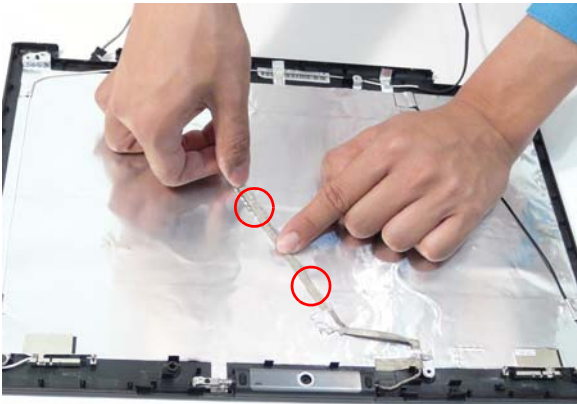
8. Replace the camera module in the casing as shown.



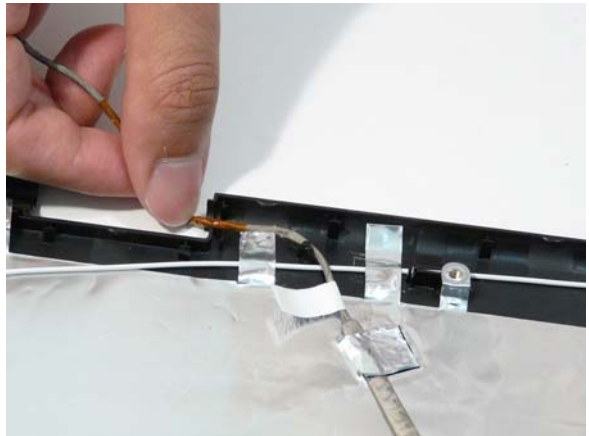
9. Replace the camera cable as shown, using all the adhesive strips and cable clips.



10. Run the camera cable along the guides on the casing and press down to secure it in place.



11. Ensure that the cable passes through the hinge well as shown.



12. Replace the single securing screw as shown.



13. Align the Latch Lid with the casing as shown.



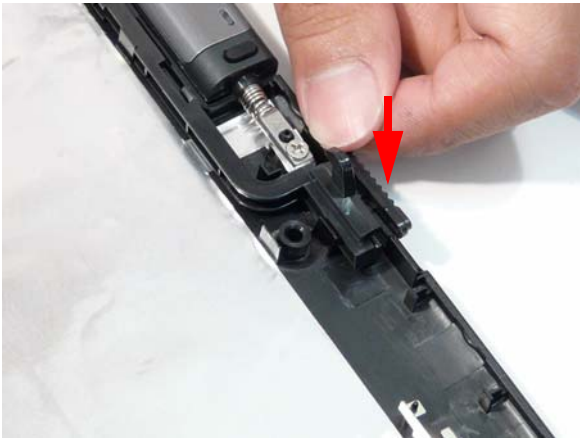
14. Insert the left side latch as shown and press down to snap it in to place.



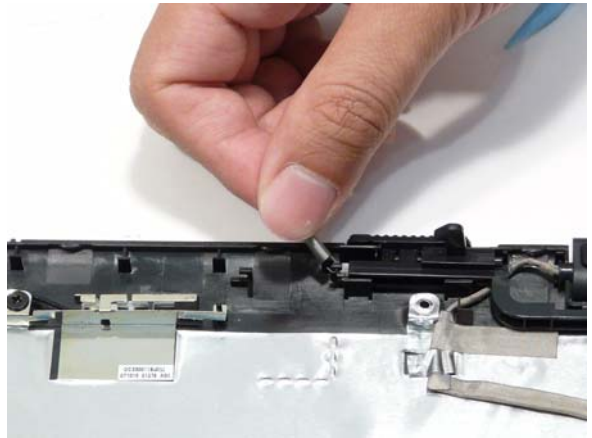
15. Press down on the centre of the Lid Latch to snap it into place.



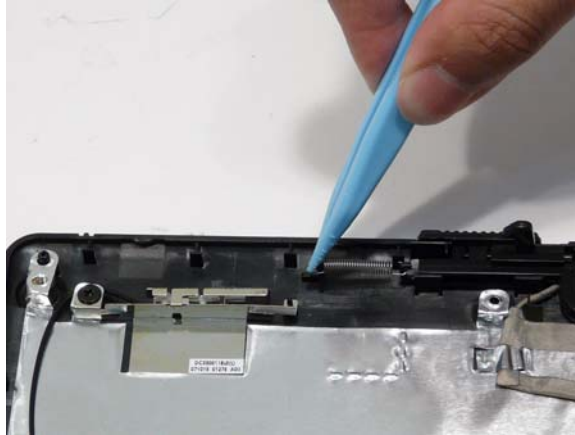
16. Insert the right side latch as shown and press down to snap it in to place.



17. Reattach the Latch Spring as shown.

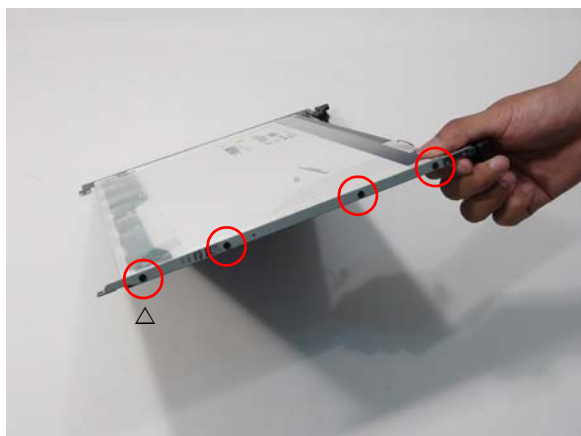


18. Reconnect the left side of the spring as shown,

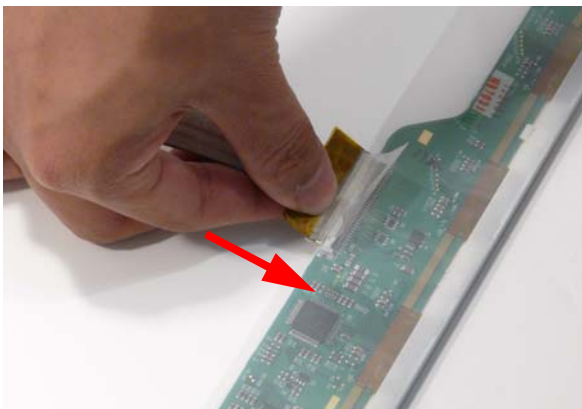


Replacing the LCD Panel

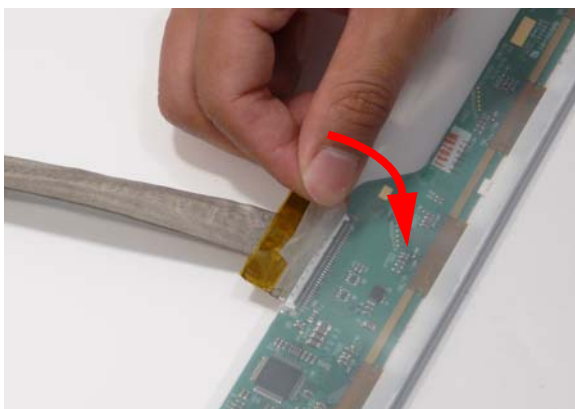
1. Align the LCD brackets with the screw holes on the panel. Starting with the top most screws (marked with △) replace the eight screws (four on each side) in the brackets as shown.



2. Insert the LCD Panel cable into the LCD Panel connector as shown.



3. Replace the adhesive strip securing the connector in place.

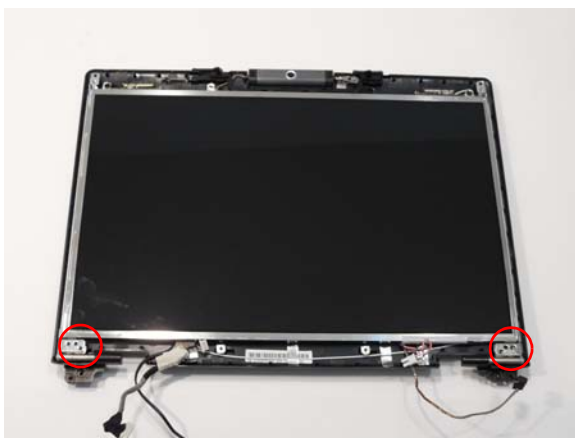


4. Place the LCD Panel in the back cover.

IMPORTANT: Ensure that the LCD power cable passes through the hinge well and is not trapped under the panel.

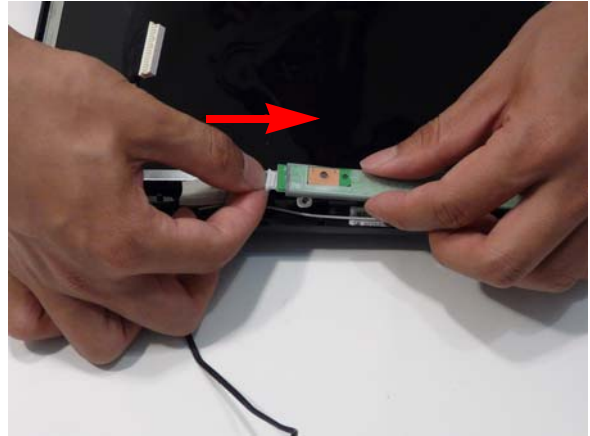
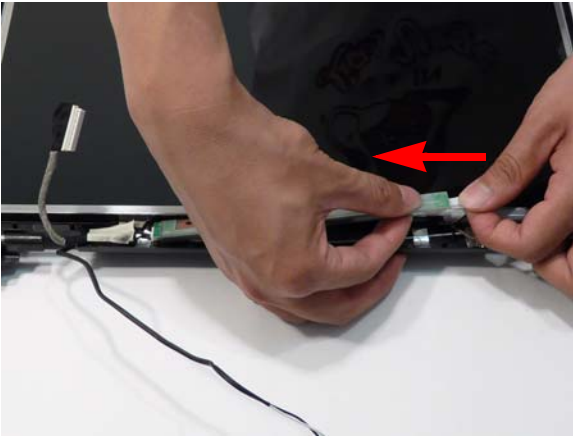


5. Secure the LCD module with the two securing screws.

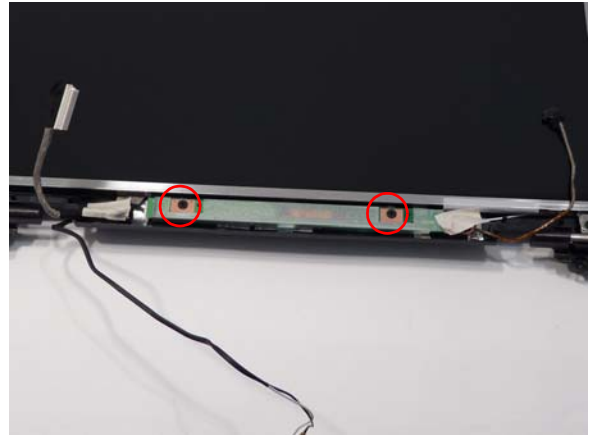
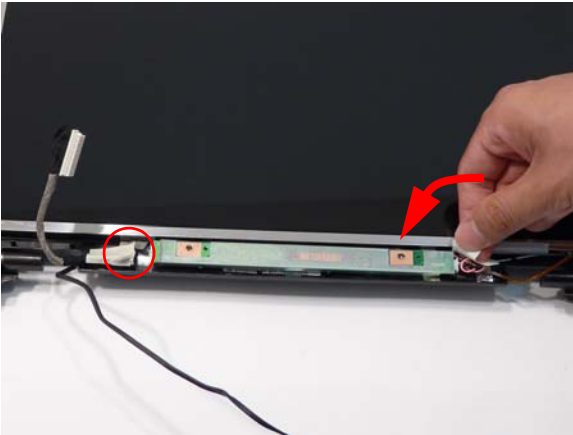


Replacing the Inverter

1. Connect the right side inverter cable.
2. Connect the left side inverter cable and place the inverter in the LCD module.



3. Replace the adhesive strips to secure the cables in place.
4. Replace the two securing screws.



Replacing the LCD Bezel

1. Locate the bezel bottom edge first and press down the edges until there are no gaps between the bezel and the LCD Module.

IMPORTANT: Ensure that the LCD cables pass through the hinge wells and are not trapped by the bezel.



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2. Replace the four screws and the rubber screw caps provided.

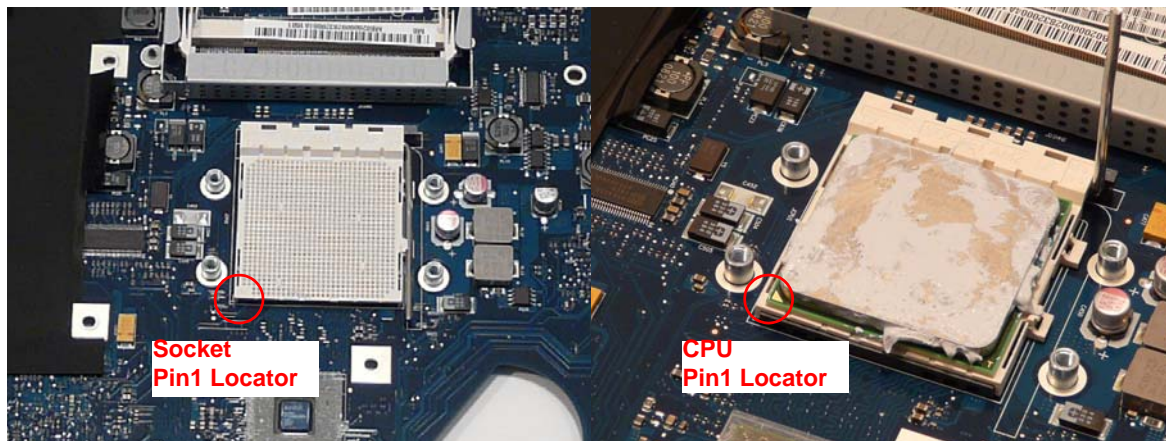


Main Module Reassembly Procedure

Replacing the CPU

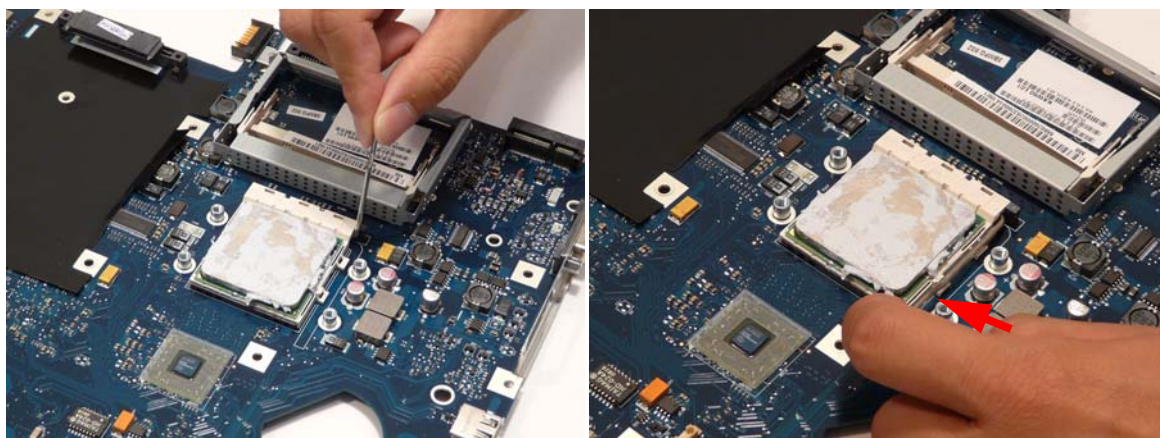
IMPORTANT:The CPU has a Pin1 locator that must be positioned corresponding to the marker on the CPU socket.

1. Carefully turn the mainboard upside down (CPU side up), and place the CPU into the CPU socket as shown, taking note of the Pin1 locator.



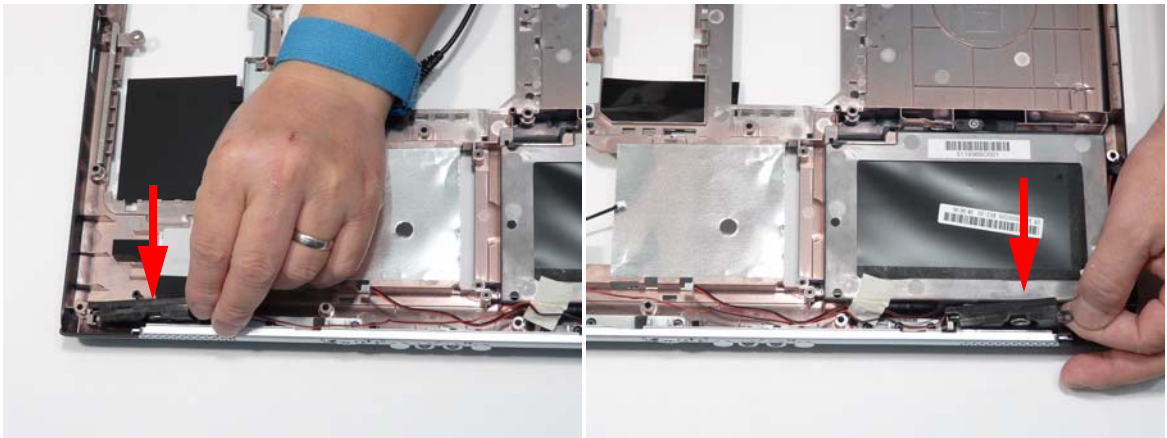
2. Gently close the socket lever and snap it into place in the securing clip.

IMPORTANT:Do not force the lever closed. The CPU is incorrectly installed if resistance is encountered. Remove the CPU and ensure that all pins are straight and that Pin1 is correctly located.



Replacing the Speaker Modules

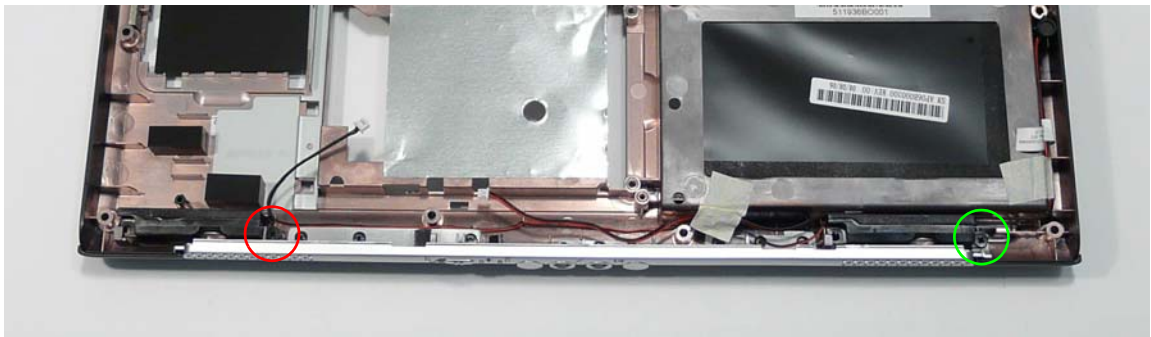
1. Place the left and right speaker modules in the chassis as shown.



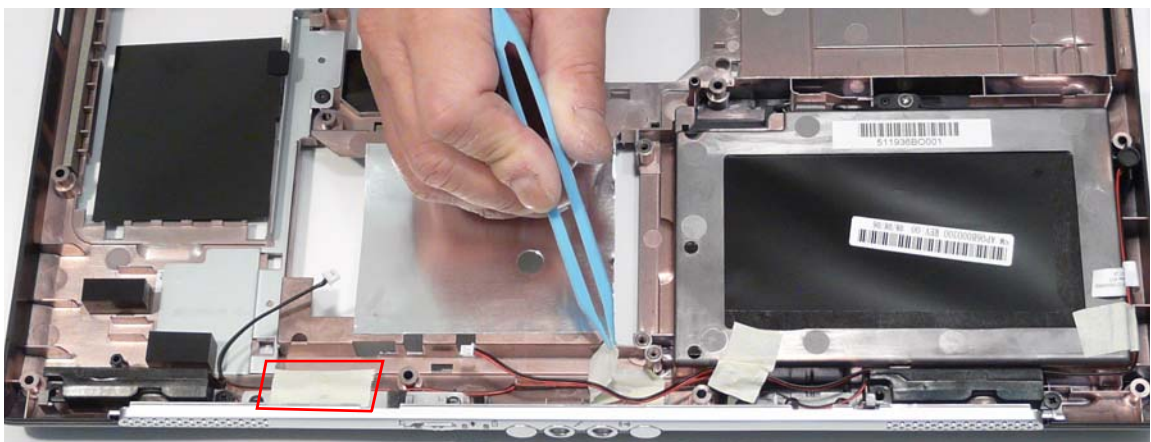
2. Replace the two securing screws.

NOTE: The left and right speaker module securing screws differ slightly in length. Ensure the correct screw is used for each speaker.

- Left Speaker Module (red callout): M2.5*3
- Right Speaker Module (green callout): M2.5*6

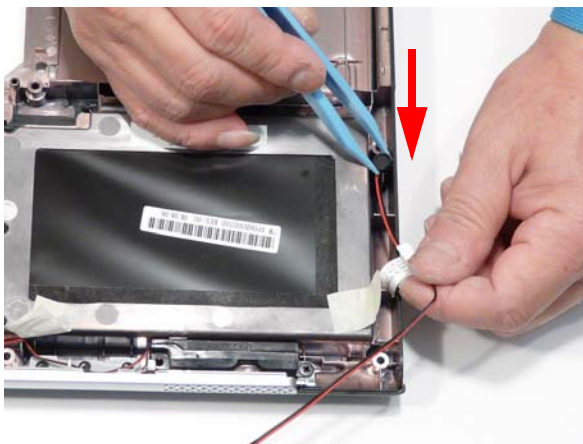


3. Run the speaker cabling along the front of the casing as shown and replace the adhesive strips.

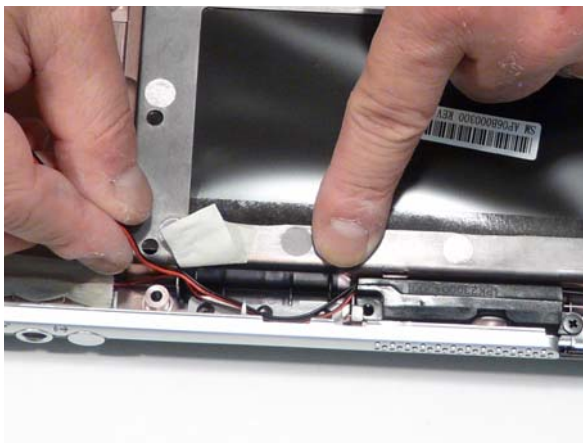


Replacing the Internal Microphone

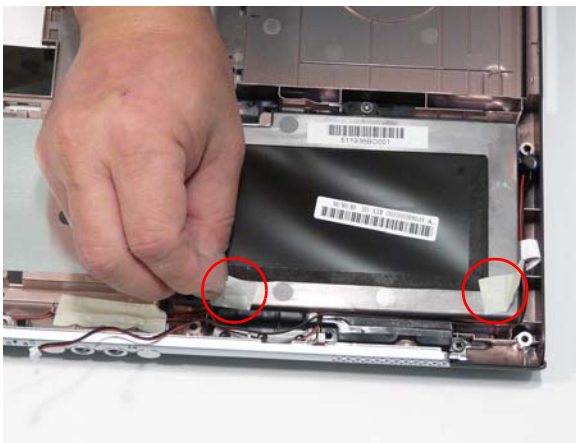
1. Place the microphone in the chassis as shown.
2. Run the cabling along the inside of the casing as shown.



3. Run the cable behind the speaker module as shown.

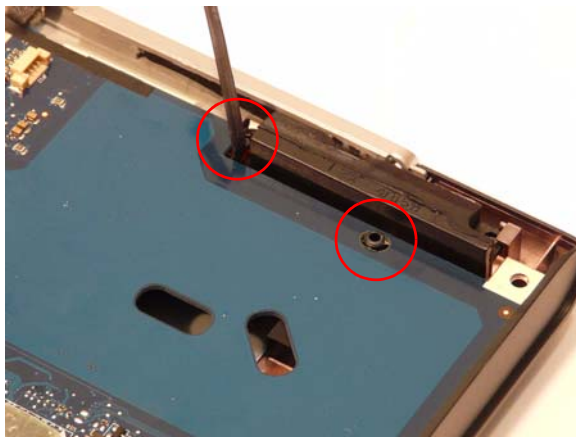
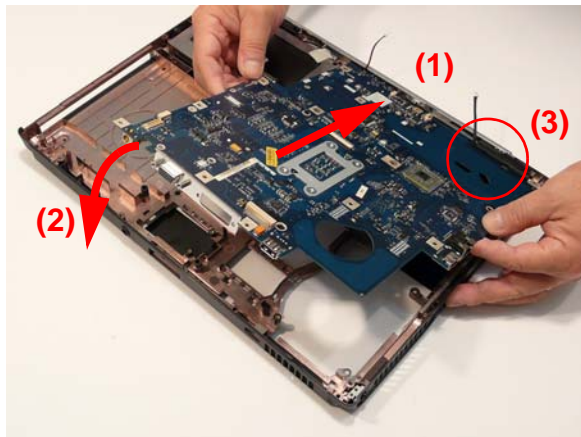


4. Replace the adhesive strips to secure the cable in place.

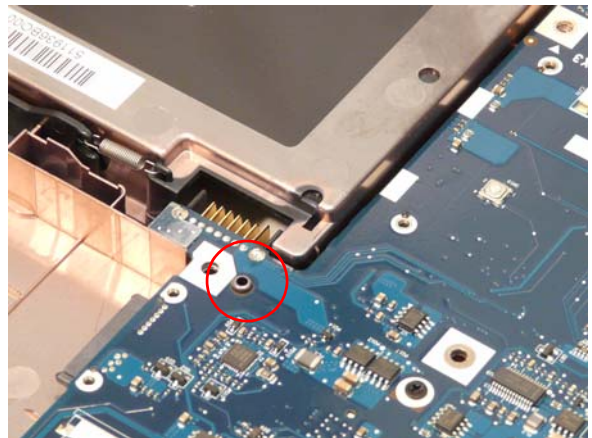
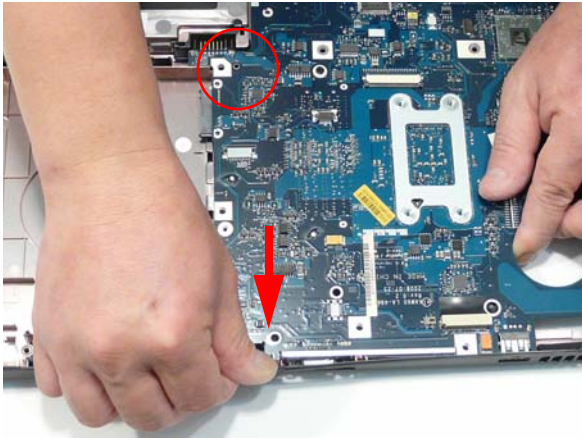


Replacing the Mainboard

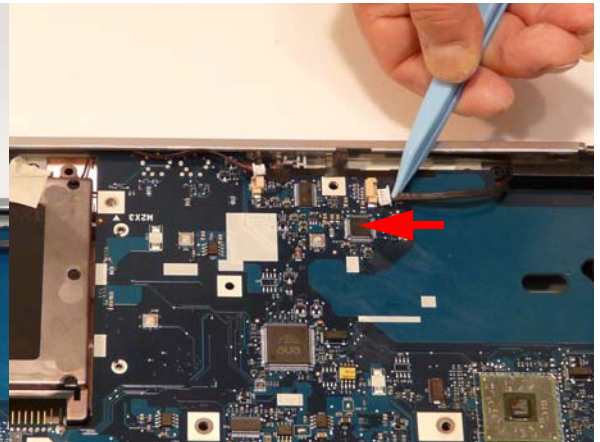
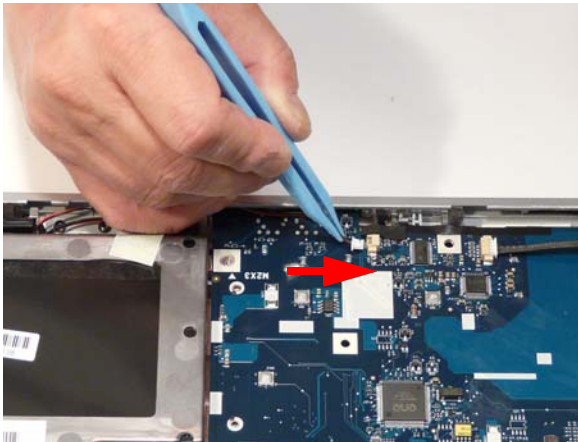
1. Ensure that the Mainboard is face up (the CPU is not visible). Place the Mainboard in the chassis, front edge first (1), then rotate it downward into position (2).
2. Ensure that the locating pin is correctly seated and the speaker cable is positioned as shown (3).



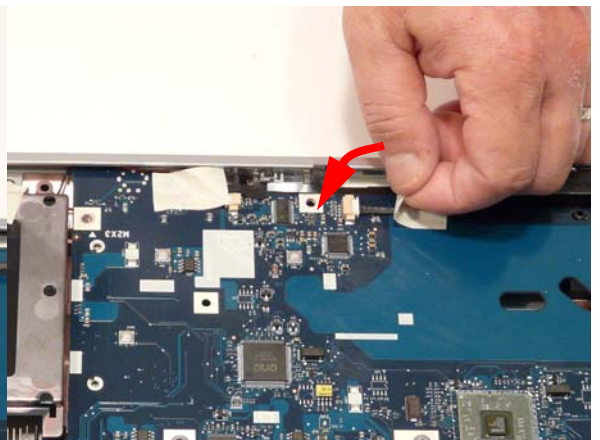
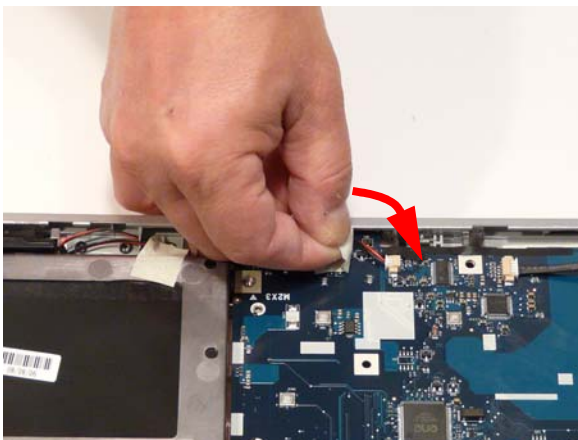
3. Ease out the casing to allow the I/O ports to pass through the rear of the chassis.
NOTE: Ensure the front and rear I/O ports are positioned correctly through the casing.
4. Ensure that the locating pin is correctly seated.



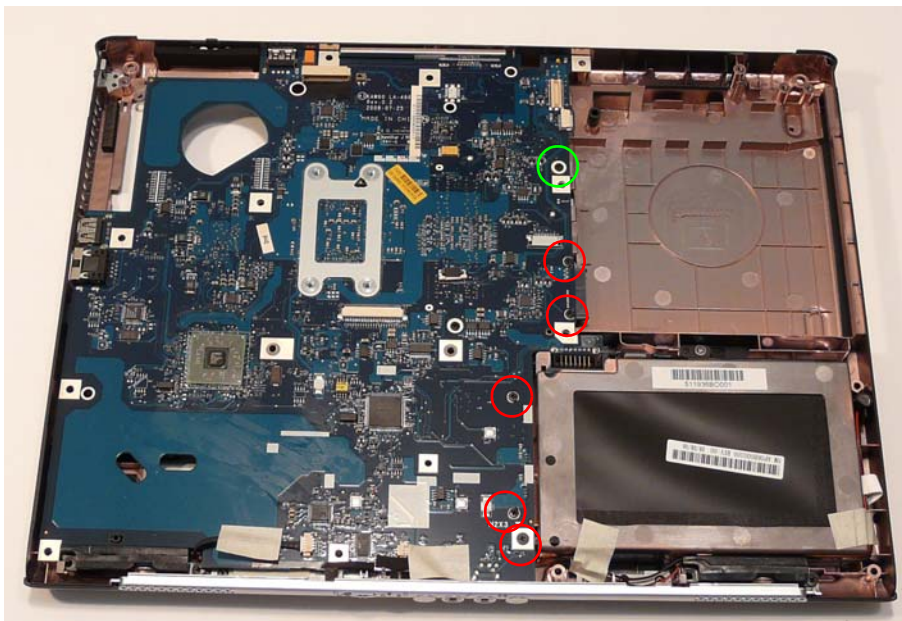
5. Reconnect the MIC and speaker cables as shown.



6. Replace the adhesive strips securing the cables in place.

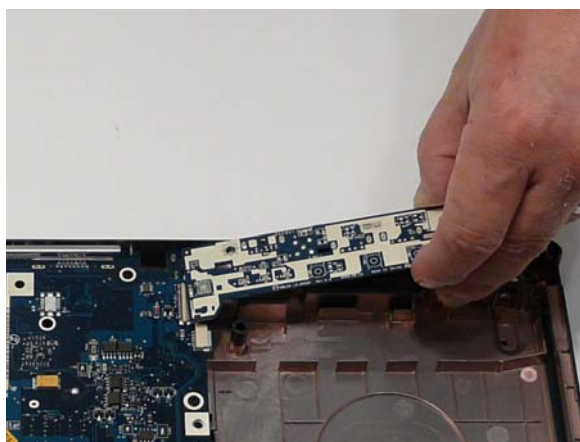
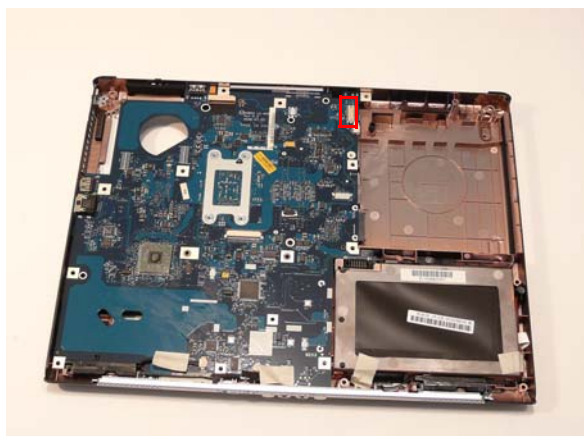


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7. Replace the six securing screws in the mainboard.

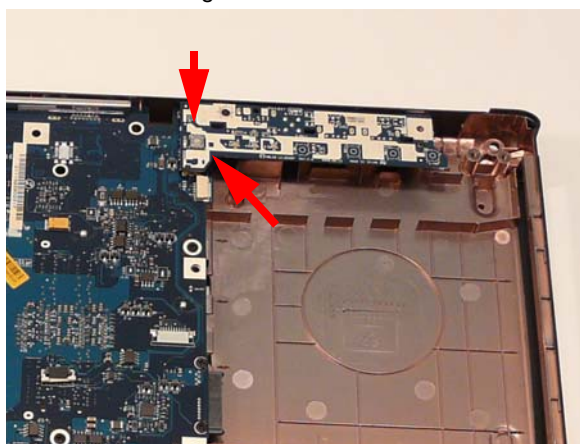


Replacing the Switch Board

1. Locate the Switch Board interface on the Mainboard.
2. Align the interface on the mainboard with the Switch Board connector.

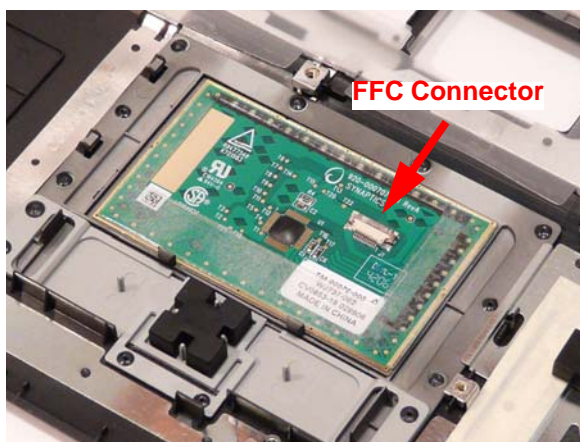
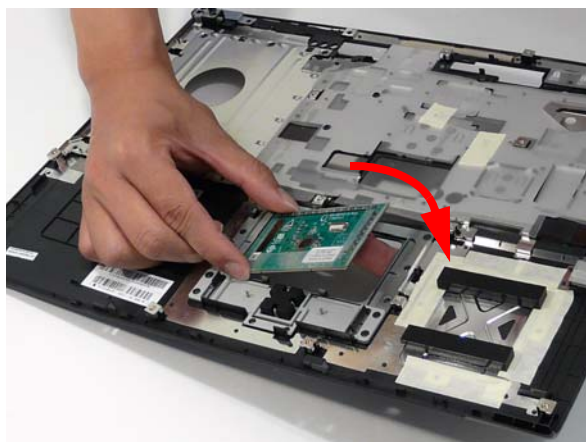


3. Pinch the Switch Board and mainboard together in the direction of the arrows to attach the Switch Board.



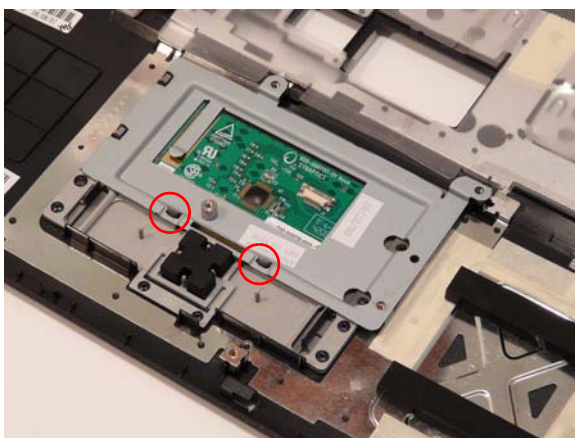
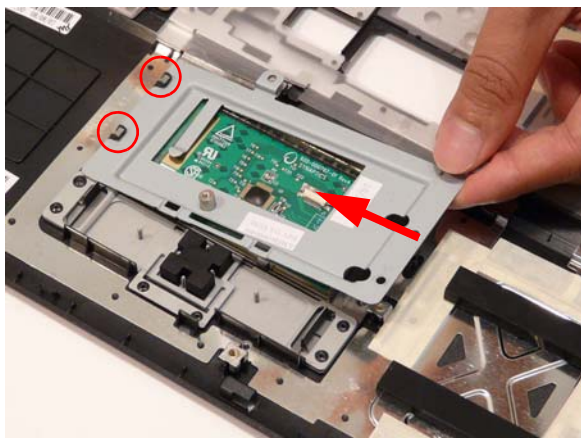
Replacing the TouchPad

1. Place the TouchPad on to the upper cover as shown.
2. Ensure that the TouchPad is correctly seated and that the FFC connector faces the rear of the cover.

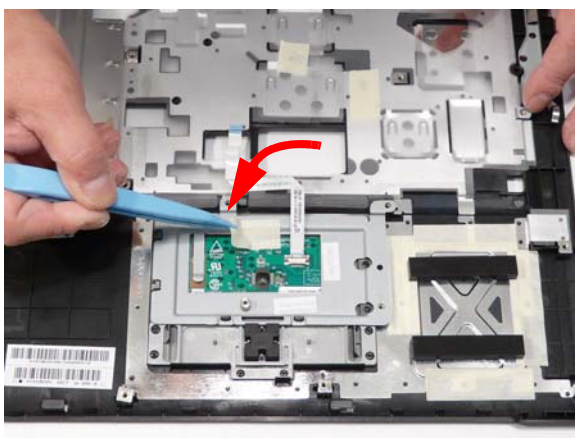
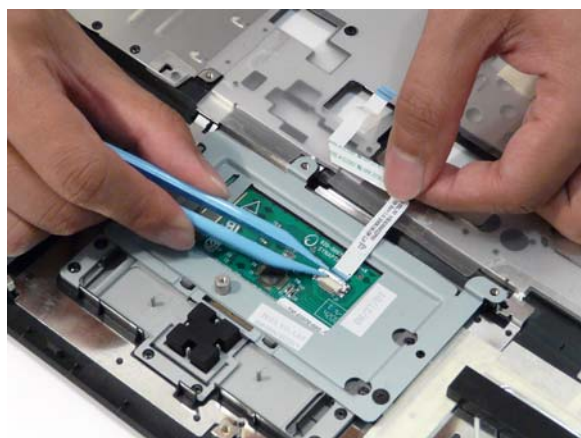


Replacing the TouchPad Bracket

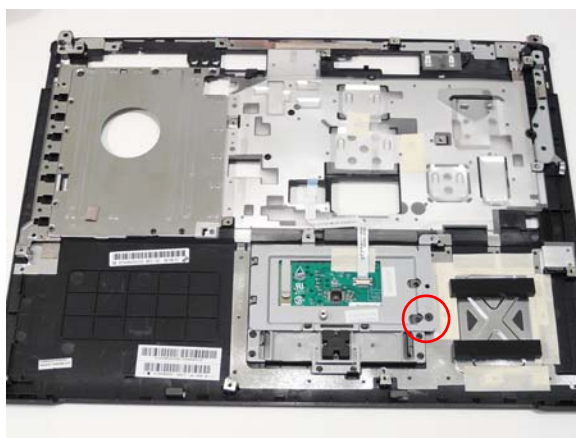
1. Replace the TouchPad bracket left side first to engage the securing clips.
2. Lower the bracket on to the upper case and press down to engage the bottom edge securing clips.



3. Replace the TouchPad FFC and close the locking latch on the connector.
4. Replace the adhesive strip as shown.

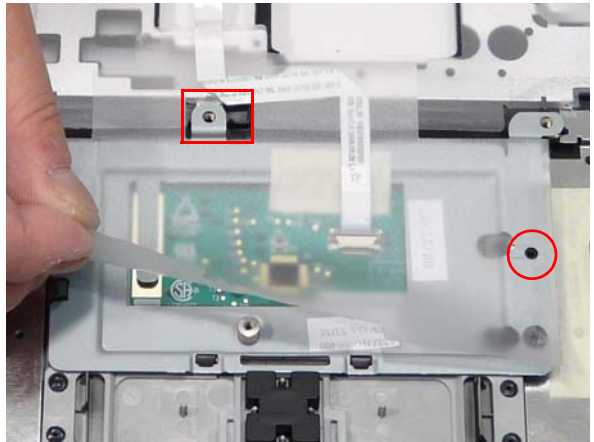
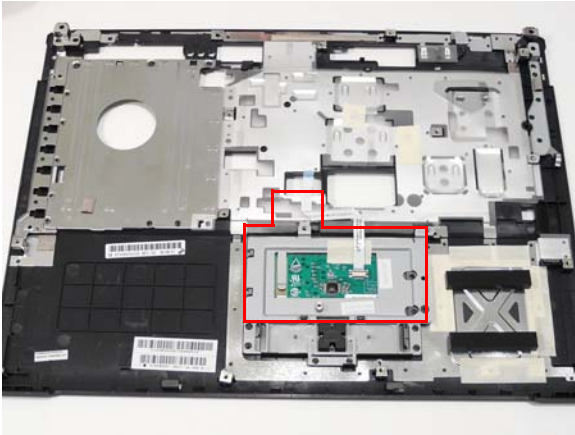


5. Replace the single securing screw.



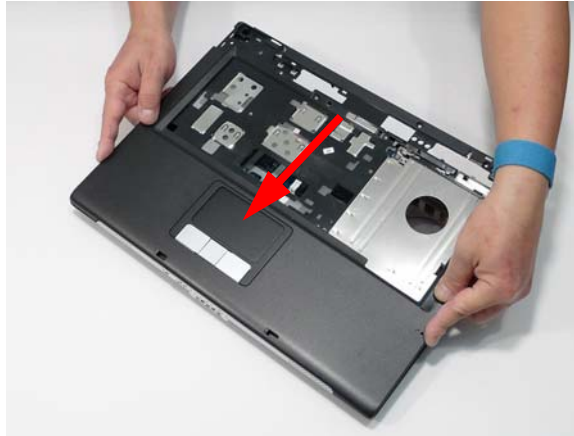
Replacing the TouchPad Mylar Cover

1. Replace the Mylar cover in the area shown.
2. Press down to secure the adhesive pads.
NOTE: Ensure that the screw holes are accessible through the cover.

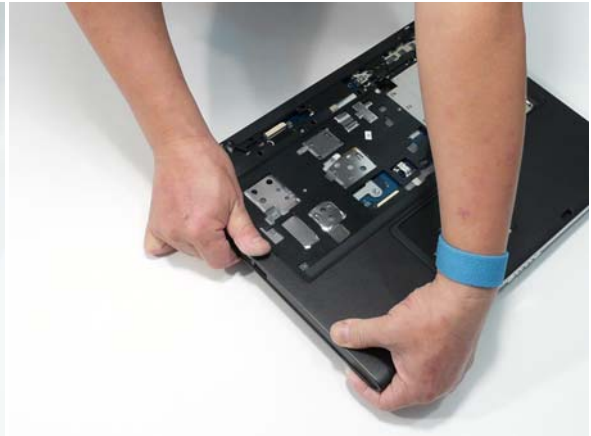


Replacing the Upper Case

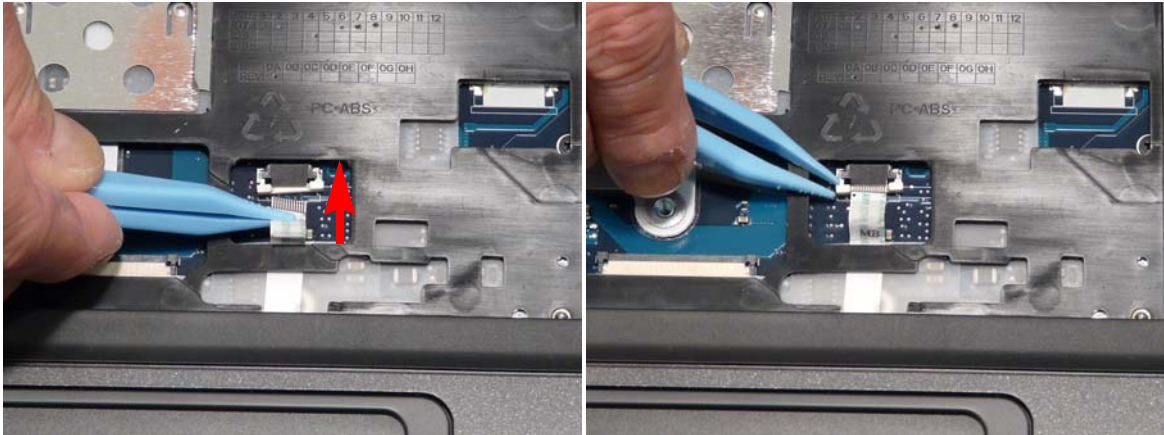
1. Place the upper case on the lower case front edge first.



2. Lower the case into position, as shown, and press down around the edges to secure it in place.



3. Reconnect the TouchPad cable and close the locking latch as shown.

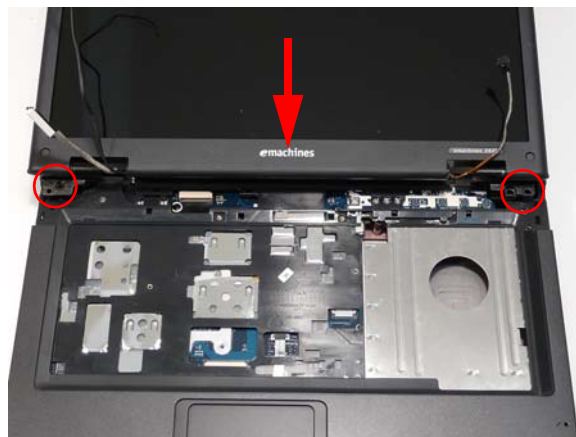


4. Replace the two screws in the upper cover as shown.
5. Turn the computer over and replace the eleven screws as shown.



Replacing the LCD Module

1. Align the LCD hinges with the lower case and replace the LCD module.

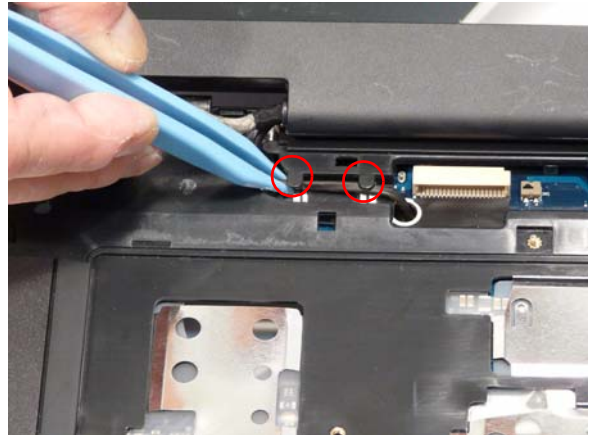


2. Replace the four securing screws (two each side), starting with the left side hinge.

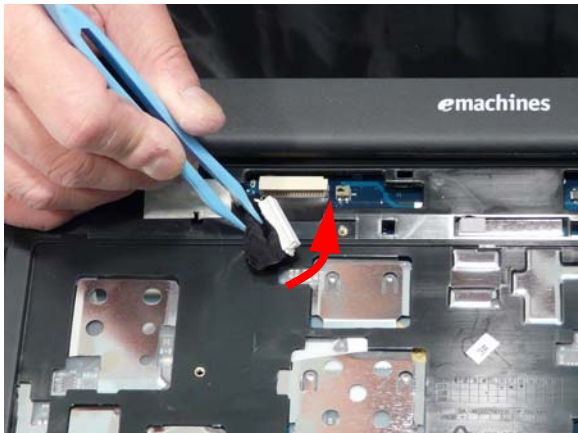
NOTE: Two different screw sizes are used to secure the LCD module in place. The red callouts require M2.5*15 screws and the green callouts require M2.5*10 screws.



3. Push the antenna cables through the chassis and pull them all the way through from the underside.
4. Place the antenna cable in the cable channel using all the cable clips as shown.



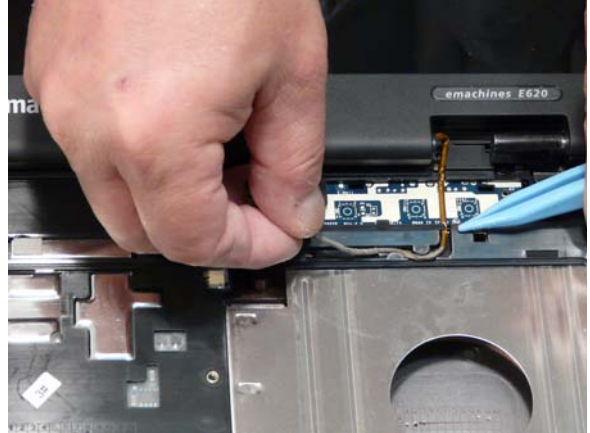
5. Reconnect the LCD power cable as shown.
6. Place the power cable in the cable channel using all the cable clips as shown.



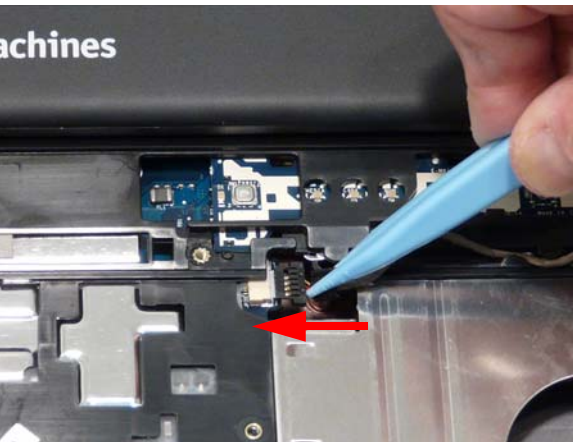
7. Replace the adhesive strip to secure the cables in place.



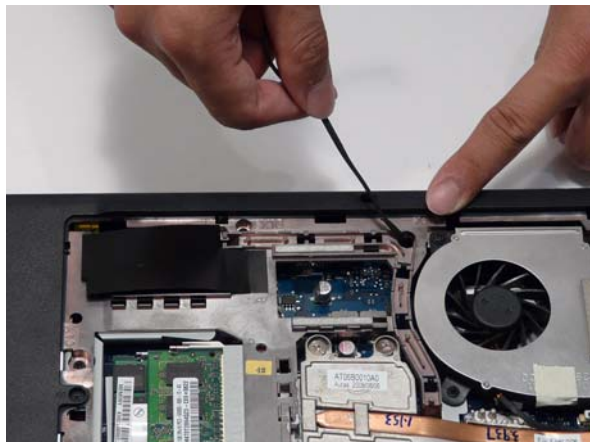
8. Place the camera cable in the cable channel using all the available cable clips.



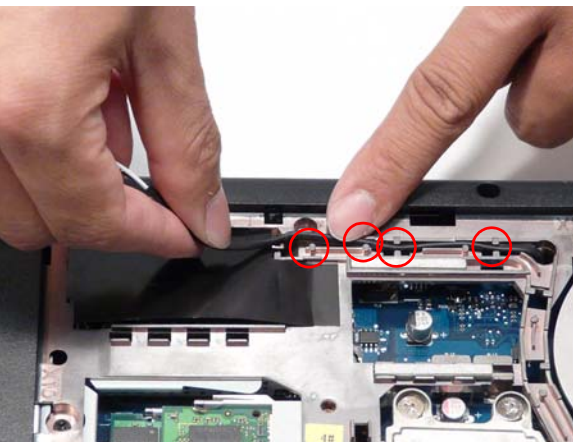
9. Reconnect the camera cable as shown.



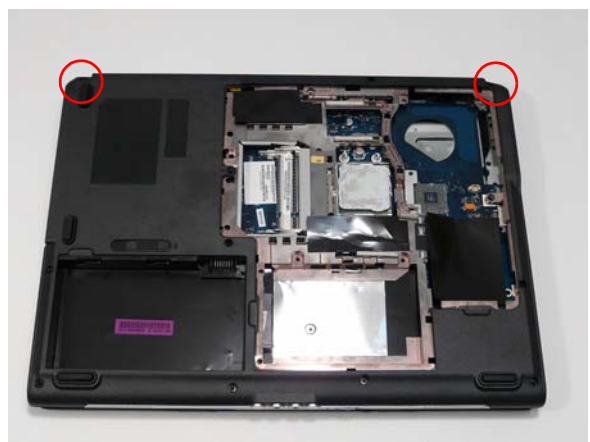
10. Turn the computer over and ensure the antenna cable is pulled fully through the chassis.



11. Run the antenna cable along the cable channel using all the available clips as shown.



12. Replace the two securing screws as shown.



Replacing the Keyboard

1. Reconnect keyboard FFC to the mainboard, and secure the locking latch.



2. Slide the keyboard away from the LCD screen to engage the securing tabs on the keyboard.



3. Replace the two securing screws.



Replacing the Switch Cover

1. Place the Switch Cover left side first on to the upper case as shown.
2. Press down on both sides of the cover to secure it in place.



3. Press down the centre of the cover to secure it in place.

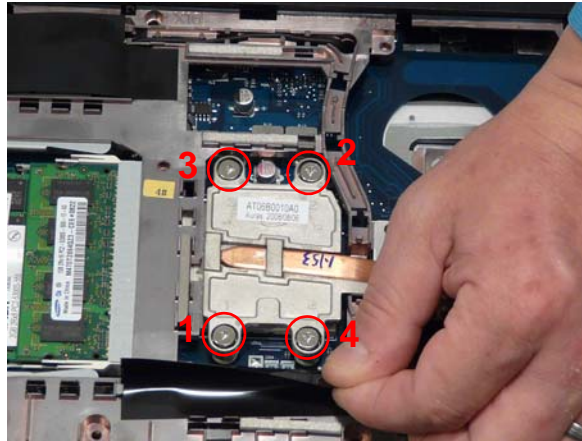


Replacing the Thermal Module

1. Turn the computer over. Place the Thermal Module, arm first, in to the chassis as shown.

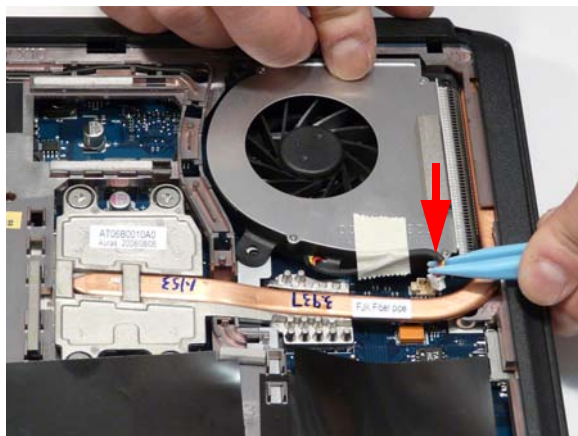
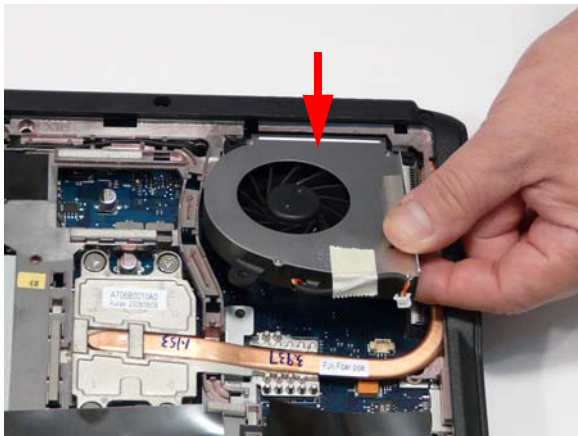


-
2. Replace the four screws (in numerical order from screw 1 to screw 4) to secure the Thermal Module.

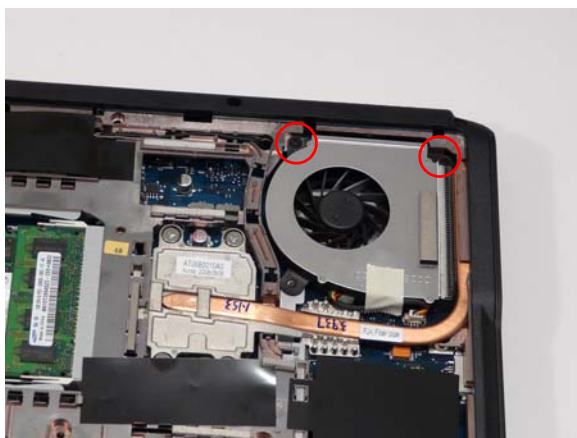


Replacing the CPU Fan Module

1. Align the Fan Module on the screw brackets.
2. Connect the Fan cable to the Mainboard.

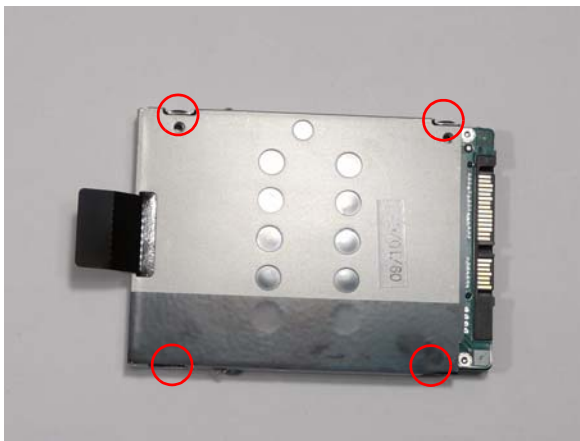


3. Replace the two securing screws.

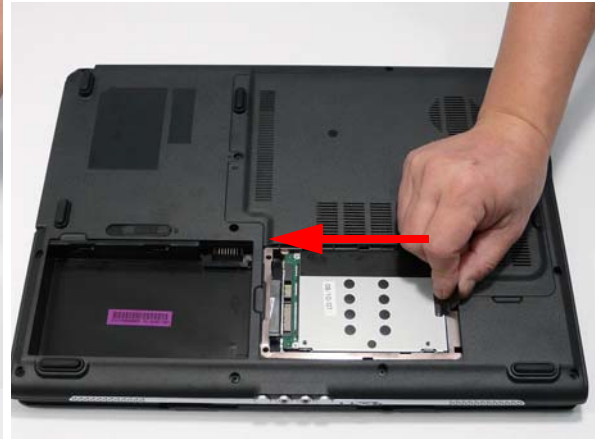
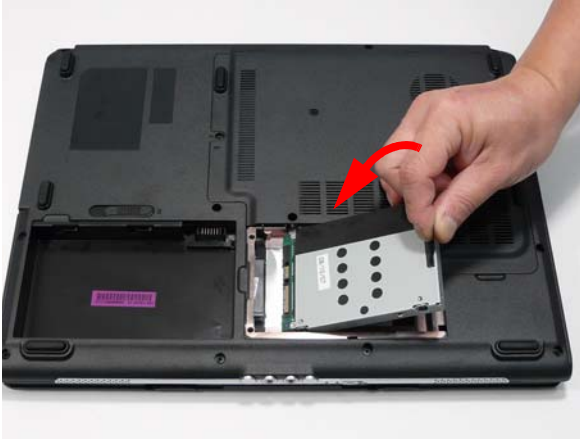


Replacing the Hard Disk Drive Module

1. Place the HDD in the HDD carrier.
2. Replace the four screws to secure the carrier.

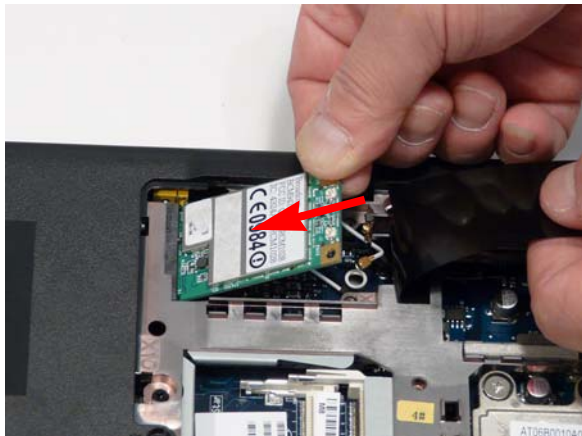


-
3. Insert the HDD, interface side first, and lower it into place.
4. Slide the HDD to the left to secure in place.



Replacing the WLAN Module

1. Insert the WLAN board into the WLAN socket.

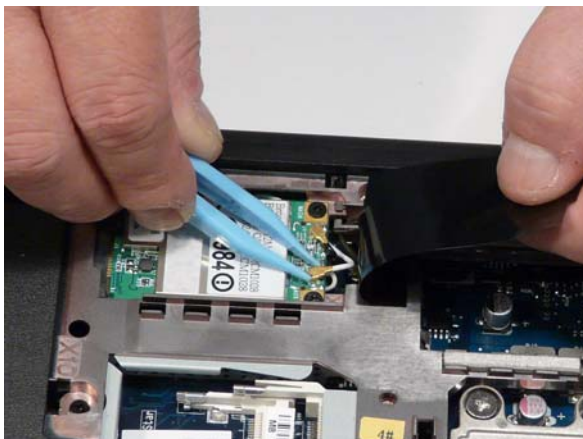


2. Replace the two screws to secure the module.



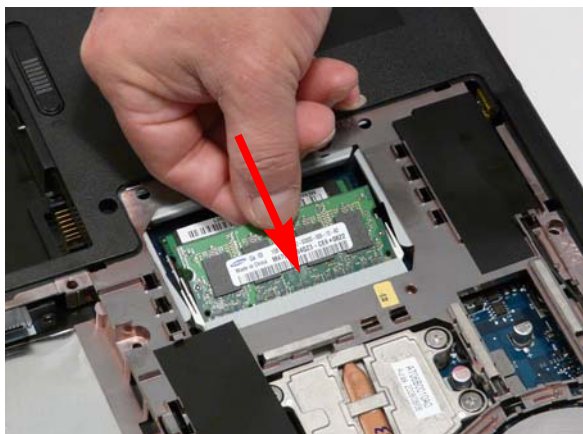
3. Connect the two antenna cables to the module.

NOTE: The black antenna cable connects to the upper terminal and the white antenna cable to the lower terminal.

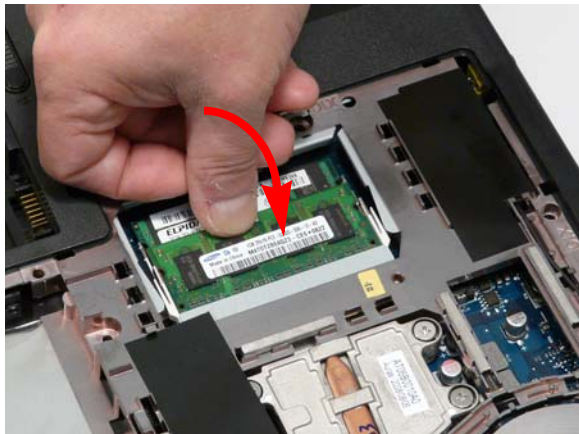


Replacing the DIMM Modules

1. Insert the DIMM Module in place.

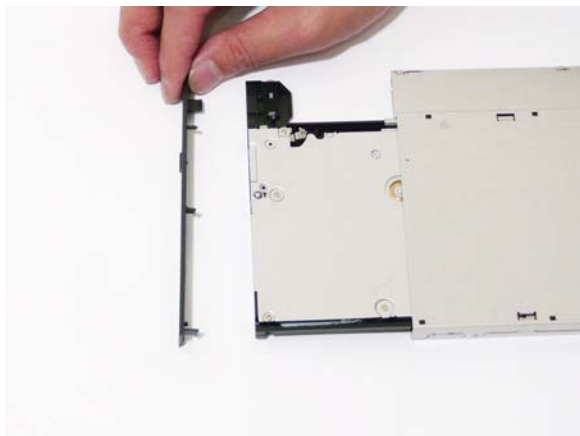


2. Press down to lock the DIMM module in place.

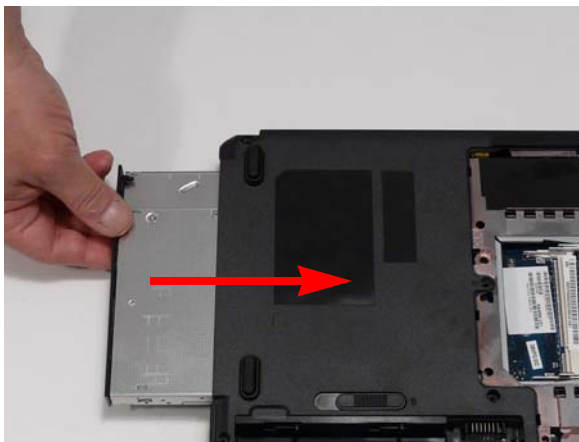
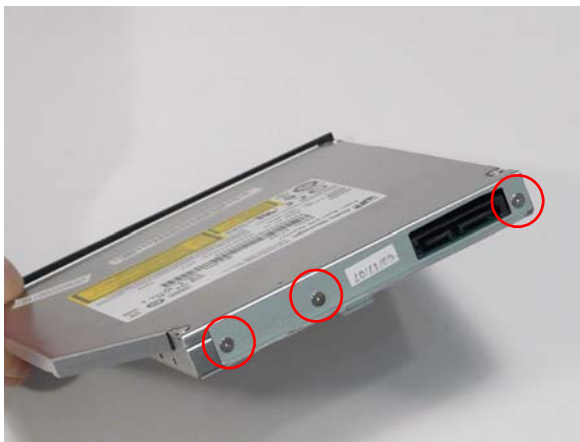


Replacing the ODD Module

1. With the ODD tray in the eject position, replace the ODD cover on the new ODD Module.
2. Press the cover into the tray, bottom edge first, to secure.



3. Turn ODD Module around and secure bracket with three screws.
4. Slide the module in the chassis and press until the module is flush with the chassis.

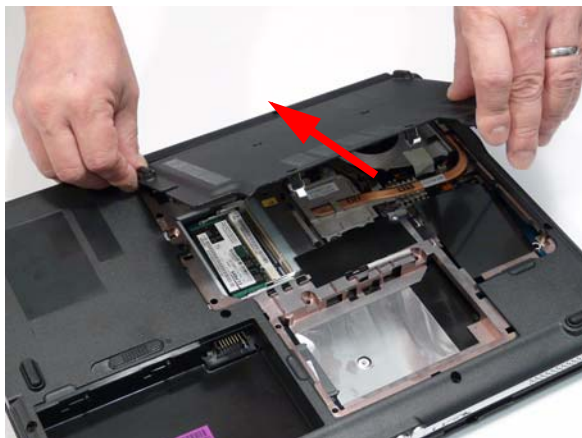


5. Replace the single screw to secure the Module.



Replacing the Lower Covers

1. Replace the Memory Cover back edge first as shown.



2. Press down the left side as shown.



3. Press down the rear corner as shown.



4. Press down the top corner.



IMPORTANT: Ensure that all the securing tabs are correctly located in the casing.

5. Replace the HDD cover as shown.

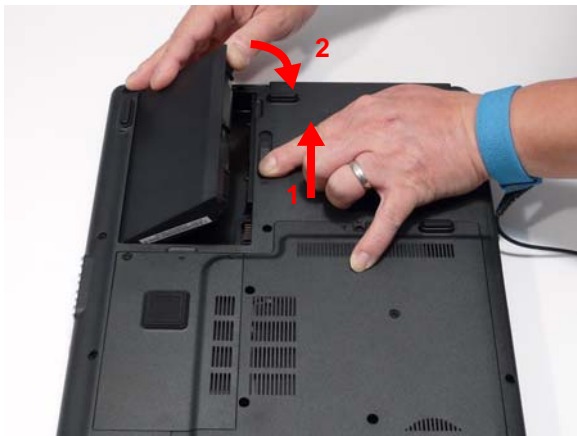


6. Replace the six securing screws.



Replacing the Battery

1. Slide and hold the battery release latch to the release position (1), insert the battery pack and press down (2).



Troubleshooting

Common Problems

Use the following procedure as a guide for computer problems.

NOTE: The diagnostic tests are intended to test only Acer products. Non-Acer products, prototype cards, or modified options can give false errors and invalid system responses.

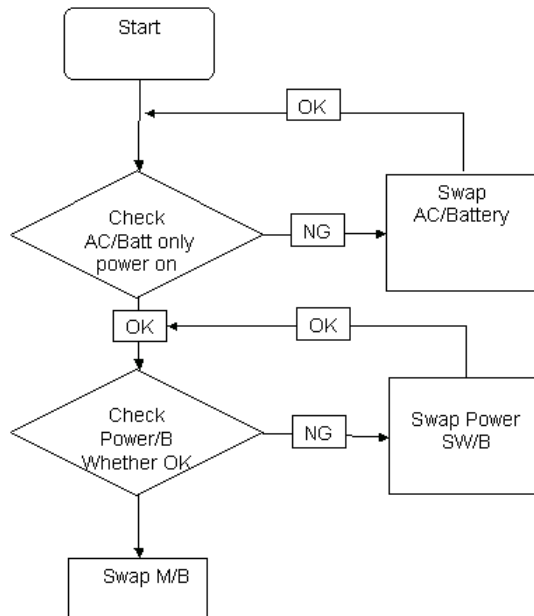
1. Obtain the failing symptoms in as much detail as possible.
2. Verify the symptoms by attempting to re-create the failure by running the diagnostic test or by repeating the same operation.
3. Use the following table with the verified symptom to determine which page to go to.

Symptoms (Verified)	Go To
Power On Issue	Page 120
No Display Issue	Page 121
LCD Failure	Page 123
Internal Keyboard Failure	Page 123
TouchPad Failure	Page 124
Internal Speaker Failure	Page 124
Internal Microphone Failure	Page 126
ODD Failure	Page 128
Modem Failure	Page 131
WLAN Failure	Page 131
Thermal Unit Failure	Page 132
Other Functions Failure	Page 133
Intermittent Failures	Page 134
Undermined Failures	Page 134

4. If the Issue is still not resolved, see "Online Support Information" on page 163.

Power On Issue

If the system doesn't power on, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



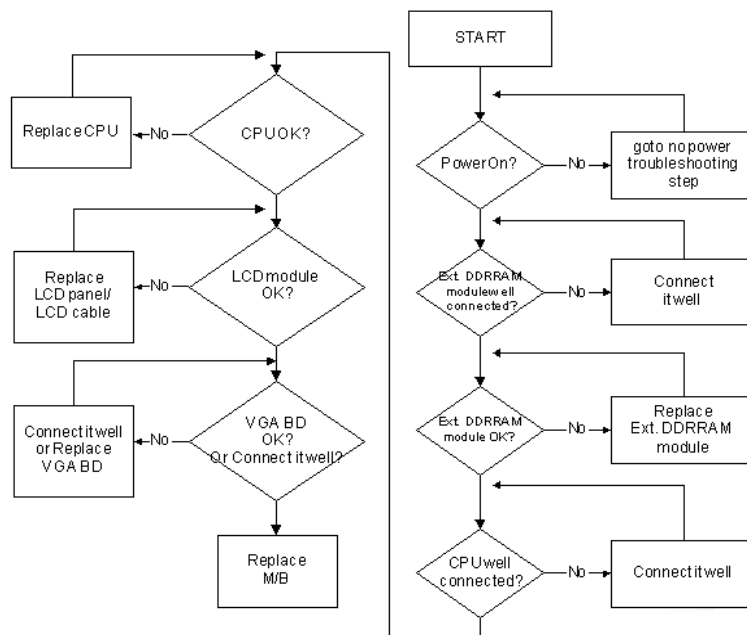
Computer Shutdown Intermittently

If the system powers off at intervals, perform the following actions one at a time to correct the problem.

1. Check the power cable is properly connected to the computer and the electrical outlet.
2. Remove any extension cables between the computer and the outlet.
3. Remove any surge protectors between the computer and the electrical outlet. Plug the computer directly into a known good electrical outlet.
4. Disconnect the power and open the casing to check the Thermal Unit (see "Thermal Unit Failure" on page 132) and fan airways are free of obstructions.
5. Disable the power management settings in the BIOS to ensure they are not the cause of the problem (see "Power" on page 29).
6. Remove all external and non-essential hardware connected to the computer that are not necessary to boot the computer to the failure point.
7. Remove any recently installed software.
8. If the Issue is still not resolved, see "Online Support Information" on page 163.

No Display Issue

If the **Display** doesn't work, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



No POST or Video

If the POST or video doesn't display, perform the following actions one at a time to correct the problem.

1. Make sure that the internal display is selected. On this notebook model, switching between the internal display and the external display is done by pressing **Fn+F5**. Reference Product pages for specific model procedures.
2. Make sure the computer has power by checking at least one of the following occurs:
 - Fans start up
 - Status LEDs light up

If there is no power, see "Power On Issue" on page 120.

3. Drain any stored power by removing the power cable and battery and holding down the power button for 10 seconds. Reconnect the power and reboot the computer.
4. Connect an external monitor to the computer and switch between the internal display and the external display by pressing **Fn+F5** (on this model).

If the POST or video appears on the external display, see "LCD Failure" on page 123.

5. Disconnect power and all external devices including port replicators or docking stations. Remove any memory cards and CD/DVD discs. Restart the computer.

If the computer boots correctly, add the devices one by one until the failure point is discovered.

6. Reseat the memory modules.
7. Remove the drives (see "Disassembly Process" on page 42).
8. If the Issue is still not resolved, see "Online Support Information" on page 163.

Abnormal Video Display

If video displays abnormally, perform the following actions one at a time to correct the problem.

1. Reboot the computer.
2. If permanent vertical/horizontal lines or dark spots display in the same location, the LCD is faulty and should be replaced. See “Disassembly Process” on page 42.
3. If extensive pixel damage is present (different colored spots in the same locations on the screen), the LCD is faulty and should be replaced. See “Disassembly Process” on page 42.
4. Adjust the brightness to its highest level. See the User Manual for instructions on adjusting settings.
NOTE: Ensure that the computer is not running on battery alone as this may reduce display brightness.
If the display is too dim at the highest brightness setting, the LCD is faulty and should be replaced. See “Disassembly Process” on page 42.
5. Check the display resolution is correctly configured:
 - a. Minimize or close all Windows.
 - b. If display size is only abnormal in an application, check the view settings and control/mouse wheel zoom feature in the application.
 - c. If desktop display resolution is not normal, right-click on the desktop and select **Personalize**→ **Display Settings**.
 - d. Click and drag the Resolution slider to the desired resolution.
 - e. Click **Apply** and check the display. Readjust if necessary.
6. Roll back the video driver to the previous version if updated.
7. Remove and reinstall the video driver.
8. Check the Device Manager to determine that:
 - The device is properly installed. There are no red Xs or yellow exclamation marks.
 - There are no device conflicts.
 - No hardware is listed under Other Devices.
9. If the Issue is still not resolved, see “Online Support Information” on page 163.
10. Run the Windows Memory Diagnostic from the operating system DVD and follow the onscreen prompts.
11. If the Issue is still not resolved, see “Online Support Information” on page 163.

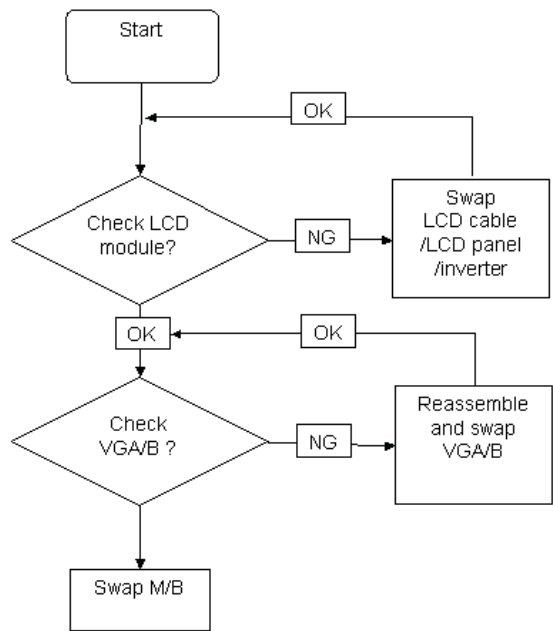
Random Loss of BIOS Settings

If the computer is experiencing intermittent loss of BIOS information, perform the following actions one at a time to correct the problem.

1. If the computer is more than one year old, replace the CMOS battery.
2. Run a complete virus scan using up-to-date software to ensure the computer is virus free.
3. If the computer is experiencing HDD or ODD BIOS information loss, disconnect and reconnect the power and data cables between devices.
If the BIOS settings are still lost, replace the cables.
4. If HDD information is missing from the BIOS, the drive may be defective and should be replaced.
5. Replace the Motherboard.
6. If the Issue is still not resolved, see “Online Support Information” on page 163.

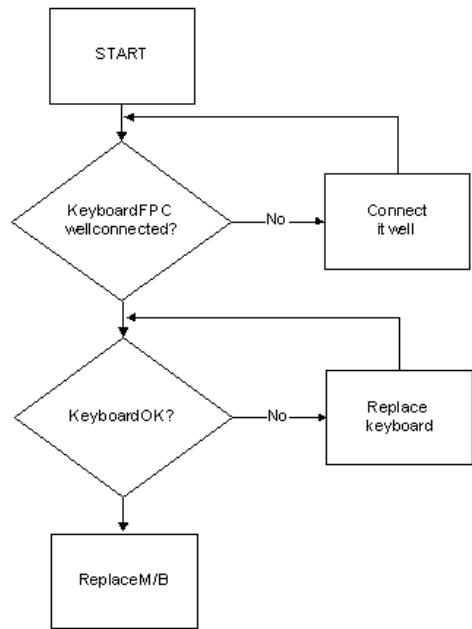
LCD Failure

If the **LCD** fails, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



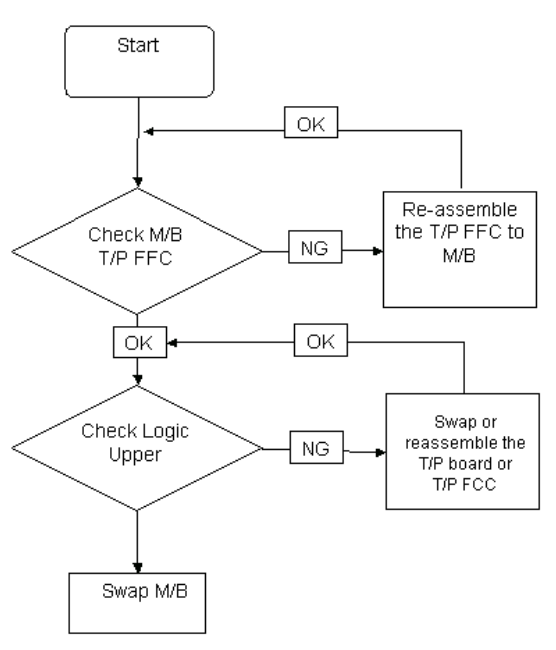
Built-In Keyboard Failure

If the built-in **Keyboard** fails, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



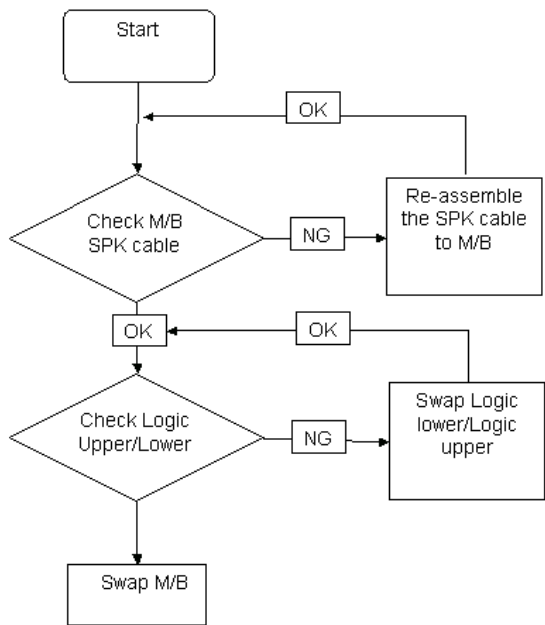
TouchPad Failure

If the **TouchPad** doesn't work, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



Internal Speaker Failure

If the internal **Speakers** fail, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



Sound Problems

If sound problems are experienced, perform the following actions one at a time to correct the problem.

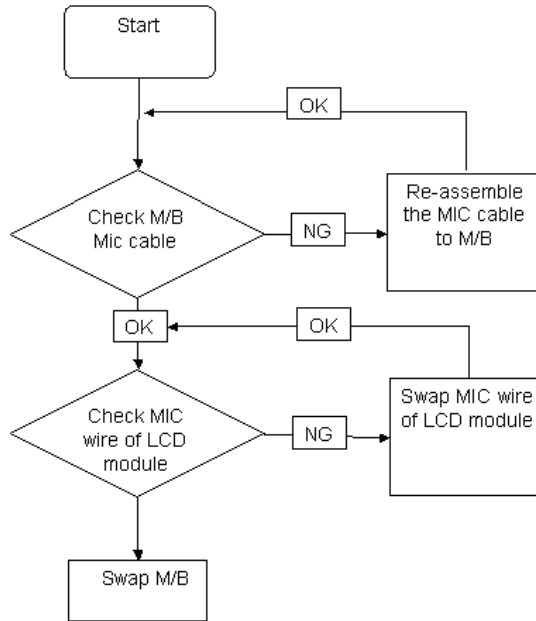
1. Reboot the computer.
2. Navigate to **Start**→ **Control Panel**→ **System and Maintenance**→ **System**→ **Device Manager**. Check the Device Manager to determine that:
 - The device is properly installed.
 - There are no red Xs or yellow exclamation marks.
 - There are no device conflicts.
 - No hardware is listed under Other Devices.
3. Roll back the audio driver to the previous version, if updated recently.
4. Remove and reinstall the audio driver.
5. Ensure that all volume controls are set mid range:
 - a. Click the volume icon on the taskbar and drag the slider to 50. Ensure that the volume is not muted.
 - b. Click Mixer to verify that other audio applications are set to 50 and not muted.
6. Navigate to **Start**→ **Control Panel**→ **Hardware and Sound**→ **Sound**. Ensure that Speakers are selected as the default audio device (green check mark).

NOTE: If Speakers does not show, right-click on the **Playback** tab and select **Show Disabled Devices** (clear by default).
7. Select Speakers and click **Configure** to start **Speaker Setup**. Follow the onscreen prompts to configure the speakers.
8. Remove and recently installed hardware or software.
9. Restore system and file settings from a known good date using **System Restore**.

If the issue is not fixed, repeat the preceding steps and select an earlier time and date.
10. Reinstall the Operating System.
11. If the Issue is still not resolved, see “Online Support Information” on page 163.

Internal Microphone Failure

If the internal **Microphone** fails, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



Microphone Problems

If internal or external **Microphones** do not operate correctly, perform the following actions one at a time to correct the problem.

1. Check that the microphone is enabled. Navigate to **Start** → **Control Panel** → **Hardware and Sound** → **Sound** and select the **Recording** tab.
2. Right-click on the **Recording** tab and select **Show Disabled Devices** (clear by default).
3. The microphone appears on the **Recording** tab.
4. Right-click on the microphone and select **Enable**.
5. Select the microphone then click **Properties**. Select the **Levels** tab.
6. Increase the volume to the maximum setting and click **OK**.
7. Test the microphone hardware:
 - a. Select the microphone and click **Configure**.
 - b. Select **Set up microphone**.
 - c. Select the microphone type from the list and click **Next**.
 - d. Follow the onscreen prompts to complete the test.
8. If the Issue is still not resolved, see "Online Support Information" on page 163.

HDD Not Operating Correctly

If the **HDD** does not operate correctly, perform the following actions one at a time to correct the problem.

1. Disconnect all external devices.
2. Run a complete virus scan using up-to-date software to ensure the computer is virus free.
3. Run the Windows Vista Startup Repair Utility:
 - a. insert the Windows Vista Operating System DVD in the ODD and restart the computer.
 - b. When prompted, press any key to start to the operating system DVD.
 - c. The **Install Windows** screen displays. Click **Next**.
 - d. Select **Repair your computer**.
 - e. The **System Recovery Options** screen displays. Click **Next**.
 - f. Select the appropriate operating system, and click **Next**.

NOTE: Click **Load Drivers** if controller drives are required.

- g. Select **Startup Repair**.
- h. Startup Repair attempts to locate and resolve issues with the computer.
- i. When complete, click **Finish**.

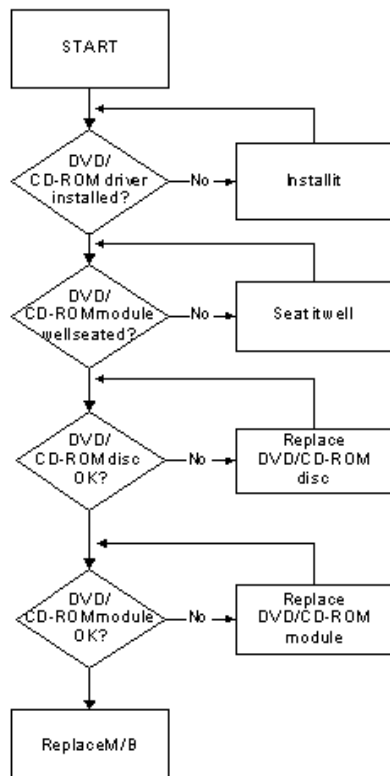
If an issue is discovered, follow the onscreen information to resolve the problem.

4. Run the Windows Memory Diagnostic Tool. For more information see Windows Help and Support.
5. Restart the computer and press F2 to enter the BIOS Utility. Check the BIOS settings are correct and that CD/DVD drive is set as the first boot device on the Boot menu.
6. Ensure all cables and jumpers on the HDD and ODD are set correctly.
7. Remove any recently added hardware and associated software.
8. Run the Windows Disk Defragmenter. For more information see Windows Help and Support.
9. Run Windows Check Disk by entering **chkdsk /r** from a command prompt. For more information see Windows Help and Support.
10. Restore system and file settings from a known good date using **System Restore**.

If the issue is not fixed, repeat the preceding steps and select an earlier time and date.
11. Replace the HDD. See "Disassembly Process" on page 42.

ODD Failure

If the **ODD** fails, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



ODD Not Operating Correctly

If the **ODD** exhibits any of the following symptoms it may be faulty:

- Audio CDs do not play when loaded
- DVDs do not play when loaded
- Blank discs do not burn correctly
- DVD or CD play breaks up or jumps
- Optical drive not found or not active:
 - Not shown in My Computer or the BIOS setup
 - LED does not flash when the computer starts up
 - The tray does not eject
- Access failure screen displays
- The ODD is noisy

Perform the following general solutions one at a time to correct the problem.

1. Reboot the computer and retry the operation.
2. Try an alternate disc.
3. Navigate to **Start** → **Computer**. Check that the ODD device is displayed in the **Devices with Removable Storage** panel.
4. Navigate to **Start** → **Control Panel** → **System and Maintenance** → **System** → **Device Manager**.

-
- a. Double-click **IDE ATA/ATAPI controllers**. If a device displays a down arrow, right-click on the device and click **Enable**.
 - b. Double-click **DVD/CD-ROM drives**. If the device displays a down arrow, right-click on the device and click **Enable**.
 - c. Check that there are no yellow exclamation marks against the items in **IDE ATA/ATAPI controllers**. If a device has an exclamation mark, right-click on the device and uninstall and reinstall the driver.
 - d. Check that there are no yellow exclamation marks against the items in **DVD/CD-ROM drives**. If a device has an exclamation mark, right-click on the device and uninstall and reinstall the driver.
 - e. If the exclamation marker is not removed from the item in the lists, try removing any recently installed software and retrying the operation.

Discs Do Not Play

If discs do not play when inserted in the drive, perform the following actions one at a time to correct the problem.

1. Check that the disc is correctly seated in the drive tray and that the label on the disc is visible.
2. Check that the media is clean and scratch free.
3. Try an alternate disc in the drive.
4. Ensure that **AutoPlay** is enabled:
 - a. Navigate to **Start**→ **Control Panel**→ **Hardware and Sound**→ **AutoPlay**.
 - b. Select **Use AutoPlay for all media and devices**.
 - c. In the Audio CD and DVD Movie fields, select the desired player from the drop down menu.
5. Check that the Regional Code is correct for the selected media:

IMPORTANT:Region can only be changed a limited number of times. After Changes remaining reaches zero, the region cannot be changed even Windows is reinstalled or the drive is moved to another computer.

- a. Navigate to **Start**→ **Control Panel**→ **System and Maintenance**→ **System**→ **Device Manager**.
- b. Double-click **DVD/CD-ROM drives**.
- c. Right-click **DVD drive** and click **Properties**, then click the **DVD Region** tab.
- d. Select the region suitable for the media inserted in the drive.

Discs Do Not Burn Properly

If discs can not be burned, perform the following actions one at a time to correct the problem.

1. Ensure that the default drive is record enabled:
 - a. Navigate to **Start**→ **Computer** and right-click the writable ODD icon. Click **Properties**.
 - b. Select the **Recording** tab. In the **Desktop disc recording** panel, select the writable ODD from the drop down list.
 - c. Click **OK**.
2. Ensure that the software used for burning discs is the factory default. If using different software, refer to the software's user manual.

Playback is Choppy

If playback is choppy or jumps, perform the following actions one at a time to correct the problem.

1. Check that system resources are not running low:
 - a. Try closing some applications.
 - b. Reboot and try the operation again.
2. Check that the ODD controller transfer mode is set to DMA:
 - a. Navigate to **Start**→ **Control Panel**→ **System and Maintenance**→ **System**→ **Device Manager**.

-
- b. Double-click **IDE ATA/ATAPI controllers**, then right-click ATA Device 0.
 - c. Click **Properties** and select the **Advanced Settings** tab. Ensure that the **Enable DMA** box is checked and click **OK**.
 - d. Repeat for the other ATA Devices shown if applicable.

Drive Not Detected

If Windows cannot detect the drive, perform the following actions one at a time to correct the problem.

1. Restart the computer and press F2 to enter the BIOS Utility.
2. Check that the drive is detected in the **ATAPI Model Name** field on the Information page.
NOTE: Check that the entry is identical to one of the ODDs specified in “Hardware Specifications and Configurations” on page 16.
3. Turn off the power and remove the cover to inspect the connections to the ODD. See “Disassembly Process” on page 42.
 - a. Check for broken connectors on the drive, motherboard, and cables.
 - b. Check for bent or broken pins on the drive, motherboard, and cable connections.
 - c. Try an alternate cable, if available. If the drive works with the new cable, the original cable should be replaced.
4. Reseat the drive ensuring and all cables are connected correctly.
5. Replace the ODD. See “Disassembly Process” on page 42.

Drive Read Failure

If discs cannot be read when inserted in the drive, perform the following actions one at a time to correct the problem.

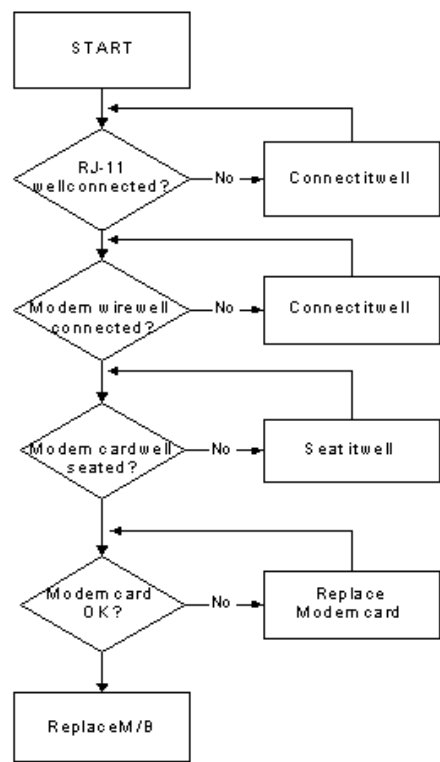
1. Remove and clean the failed disc.
2. Retry reading the CD or DVD.
 - d. Test the drive using other discs.
 - e. Play a DVD movie
 - f. Listen to a music CD

If the ODD works properly with alternate discs, the original disc is probably defective and should be replaced.

3. Turn off the power and remove the cover to inspect the connections to the ODD. See “Disassembly Process” on page 42.
 - a. Check for broken connectors on the drive, motherboard, and cables.
 - b. Check for bent or broken pins on the drive, motherboard, and cable connections.
 - c. Try an alternate cable, if available. If the drive works with the new cable, the original cable should be replaced.
4. Replace the ODD. See “Disassembly Process” on page 42.

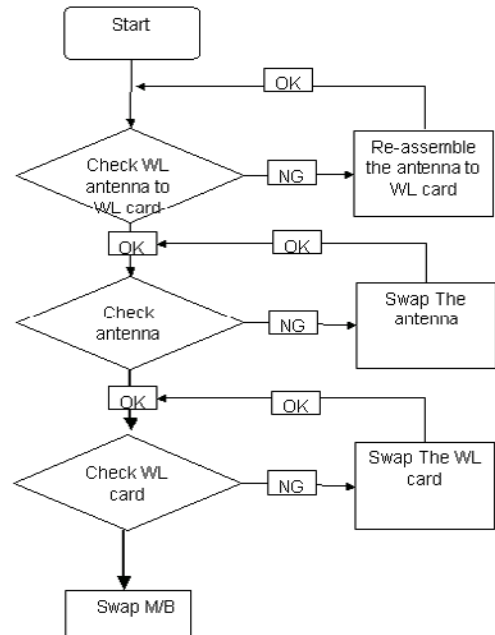
Modem Function Failure

If the internal **Modem** fails, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



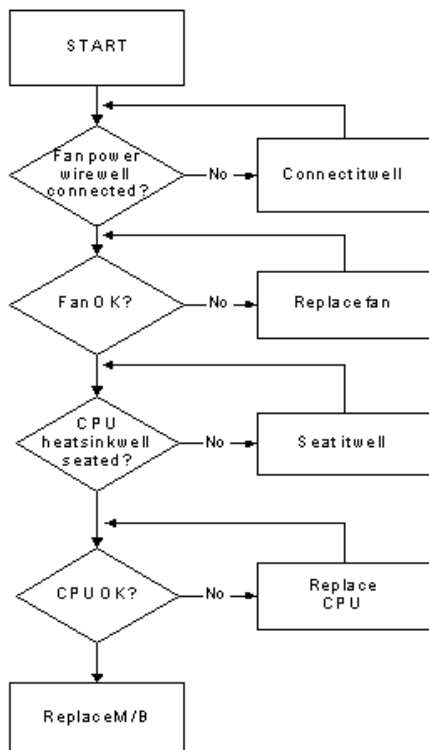
Wireless Function Failure

If the **WLAN** fails, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



Thermal Unit Failure

If the **Thermal Unit** fails, perform the following actions one at a time to correct the problem. Do not replace a non-defective FRUs:



External Mouse Failure

If an external **Mouse** fails, perform the following actions one at a time to correct the problem.

1. Try an alternative mouse.
2. If the mouse uses a wireless connection, insert new batteries and confirm there is a good connection. See the mouse user manual.
3. If the mouse uses a USB connection, try an alternate USB port.
4. Try an alternative program to verify mouse operation. Reinstall the program experiencing mouse failure.
5. Restart the computer.
6. Remove any recently added hardware and associated software.
7. Remove any recently added software and reboot.
8. Restore system and file settings from a known good date using **System Restore**.
If the issue is not fixed, repeat the preceding steps and select an earlier time and date.
9. Run the Event Viewer to check the events log for errors. For more information see Windows Help and Support.
10. Roll back the mouse driver to the previous version if updated recently.
11. Remove and reinstall the mouse driver.
12. Check the Device Manager to determine that:
 - The device is properly installed. There are no red Xs or yellow exclamation marks.
 - There are no device conflicts.

-
- No hardware is listed under Other Devices.

13. If the Issue is still not resolved, see “Online Support Information” on page 163.

Other Failures

If the CRT Switch, Dock, LAN Port, external MIC or Speakers, PCI Express Card, 5-in-1 Card Reader or Volume Wheel fail, perform the following general steps to correct the problem. Do not replace a non-defective FRUs:

- 1.** Check Drive whether is OK.
- 2.** Check Test Fixture is ok.
- 3.** Swap M/B to Try.

Intermittent Problems

Intermittent system hang problems can be caused by a variety of reasons that have nothing to do with a hardware defect, such as: cosmic radiation, electrostatic discharge, or software errors. FRU replacement should be considered only when a recurring problem exists.

When analyzing an intermittent problem, do the following:

1. Run the advanced diagnostic test for the system board in loop mode at least 10 times.
2. If no error is detected, do not replace any FRU.
3. If any error is detected, replace the FRU. Rerun the test to verify that there are no more errors.

Undetermined Problems

The diagnostic problems does not identify which adapter or device failed, which installed devices are incorrect, whether a short circuit is suspected, or whether the system is inoperative.

Follow these procedures to isolate the failing FRU (do not isolate non-defective FRU).

NOTE: Verify that all attached devices are supported by the computer.

NOTE: Verify that the power supply being used at the time of the failure is operating correctly. (See “Power On Issue” on page 120.):

1. Power-off the computer.
2. Visually check them for damage. If any problems are found, replace the FRU.
3. Remove or disconnect all of the following devices:
 - Non-Acer devices
 - Printer, mouse, and other external devices
 - Battery pack
 - Hard disk drive
 - DIMM
 - CD-ROM/Diskette drive Module
 - PC Cards
4. Power-on the computer.
5. Determine if the problem has changed.
6. If the problem does not recur, reconnect the removed devices one at a time until you find the failing FRU.
7. If the problem remains, replace the following FRU one at a time. Do not replace a non-defective FRU:
 - System board
 - LCD assembly

Post Codes

These tables describe the POST codes and descriptions during the POST.

Chipset POST Codes

The following table details the chipset POST codes and functions used in the POST.

Code	Beeps	POST Routine Description
02h		Verify Real Mode
03h		Disable Non-Maskable Interrupt (NMI)
04h		Get CPU type
06h		Initialize system hardware
08h		Initialize chipset with initial POST values
09h		Set IN POST flag
0Ah		Initialize CPU registers
0Bh		Enable CPU cache
0Ch		Initialize caches to initial POST values
0Eh		Initialize I/O component
0Fh		Initialize the local bus IDE
10h		Initialize Power Management
11h		Load alternate registers with initial POST values
12h		Restore CPU control word during warm boot
13h		Initialize PCI Bus Mastering devices
14h		Initialize keyboard controller
16h	1-2-2-3	BIOS ROM checksum
17h		Initialize cache before memory autosize
18h	8254	timer initialization
1Ah	8237	DMA controller initialization
1Ch		Reset Programmable Interrupt Controller
20h	1-3-1-1	Test DRAM refresh
22h	1-3-1-3	Test 8742 Keyboard Controller
24h		Set ES segment register to 4 GB
26h		Enable A20 line
28h		Autosize DRAM
29h		Initialize POST Memory Manager
2Ah		Clear 512 KB base RAM
2Ch	1-3-4-1	RAM failure on address line xxxx*
2Eh	1-3-4-3	RAM failure on data bits xxxx* of low byte of memory bus
2Fh		Enable cache before system BIOS shadow
30h	1-4-1-1	RAM failure on data bits xxxx* of high byte of memory bus
32h		Test CPU bus-clock frequency
33h		Initialize Phoenix Dispatch Manager
36h		Warm start shut down
38h		Shadow system BIOS ROM
3Ah		Autosize cache

Code	Beeps	POST Routine Description
3Ch		Advanced configuration of chipset registers
3Dh		Load alternate registers with CMOS values
42h		Initialize interrupt vectors
45h		POST device initialization
46h	2-1-2-3	Check ROM copyright notice
48h		Check video configuration against CMOS
49h		Initialize PCI bus and devices
4Ah		Initialize all video adapters in system
4Bh		QuietBoot start (optional)
4Ch		Shadow video BIOS ROM
4Eh		Display BIOS copyright notice
50h		Display CPU type and speed
51h		Initialize EISA board
52h		Test keyboard
54h		Set key click if enabled
58h	2-2-3-1	Test for unexpected interrupts
59h		Initialize POST display service
5Ah		Display prompt Press F2 to enter SETUP
5Bh		Disable CPU cache
5Ch		Test RAM between 512 and 640 KB
60h		Test extended memory
62h		Test extended memory address lines
64h		Jump to UserPatch1
66h		Configure advanced cache registers
67h		Initialize Multi Processor APIC
68h		Enable external and CPU caches
69h		Setup System Management Mode (SMM) area
6Ah		Display external L2 cache size
6Bh		Load custom defaults (optional)
6Ch		Display shadow-area message
6Eh		Display possible high address for UMB recovery
70h		Display error messages
72h		Check for configuration errors
76h		Check for keyboard errors
7Ch		Set up hardware interrupt vectors
7Eh		Initialize coprocessor if present
80h		Disable onboard Super I/O ports and IRQs
81h		Late POST device initialization
82h		Detect and install external RS232 ports
83h		Configure non-MCD IDE controllers
84h		Detect and install external parallel ports
85h		Initialize PC-compatible PnP ISA devices
86h		Re-initialize onboard I/O ports.

Code	Beeps	POST Routine Description
87h		Configure Motherboard Configurable Devices (optional)
88h		Initialize BIOS Data Area
89h		Enable Non-Maskable Interrupts (NMIs)
8Ah		Initialize Extended BIOS Data Area
8Bh		Test and initialize PS/2 mouse
8Ch		Initialize floppy controller
8Fh		Determine number of ATA drives (optional)
90h		Initialize hard-disk controllers
91h		Initialize local-bus hard-disk controllers
92h		Jump to UserPatch2
93h		Build MPTABLE for multi-processor boards
95h		Install CD ROM for boot
96h		Clear huge ES segment register
97h		Fixup Multi Processor table
98h	1-2	Search for option ROMs. One long, two short beeps on checksum failure
99h		Check for SMART Drive (optional)
9Ah		Shadow option ROMs
9Ch		Set up Power Management
9Dh		Initialize security engine (optional)
9Eh		Enable hardware interrupts
9Fh		Determine number of ATA and SCSI drives
A0h		Set time of day
A2h		Check key lock
A4h		Initialize Typematic rate
A8h		Erase F2 prompt
AAh		Scan for F2 key stroke
ACH		Enter SETUP
A Eh		Clear Boot flag
B0h		Check for errors
B2h		POST done - prepare to boot operating system
B4h	1	One short beep before boot
B5h		Terminate QuietBoot (optional)
B6h		Check password (optional)
B9h		Prepare Boot
BAh		Initialize DMI parameters
BBh		Initialize PnP Option ROMs
BCh		Clear parity checkers
BDh		Display MultiBoot menu
BEh		Clear screen (optional)
BFh		Check virus and backup reminders
C0h		Try to boot with INT 19
C1h		Initialize POST Error Manager (PEM)
C2h		Initialize error logging

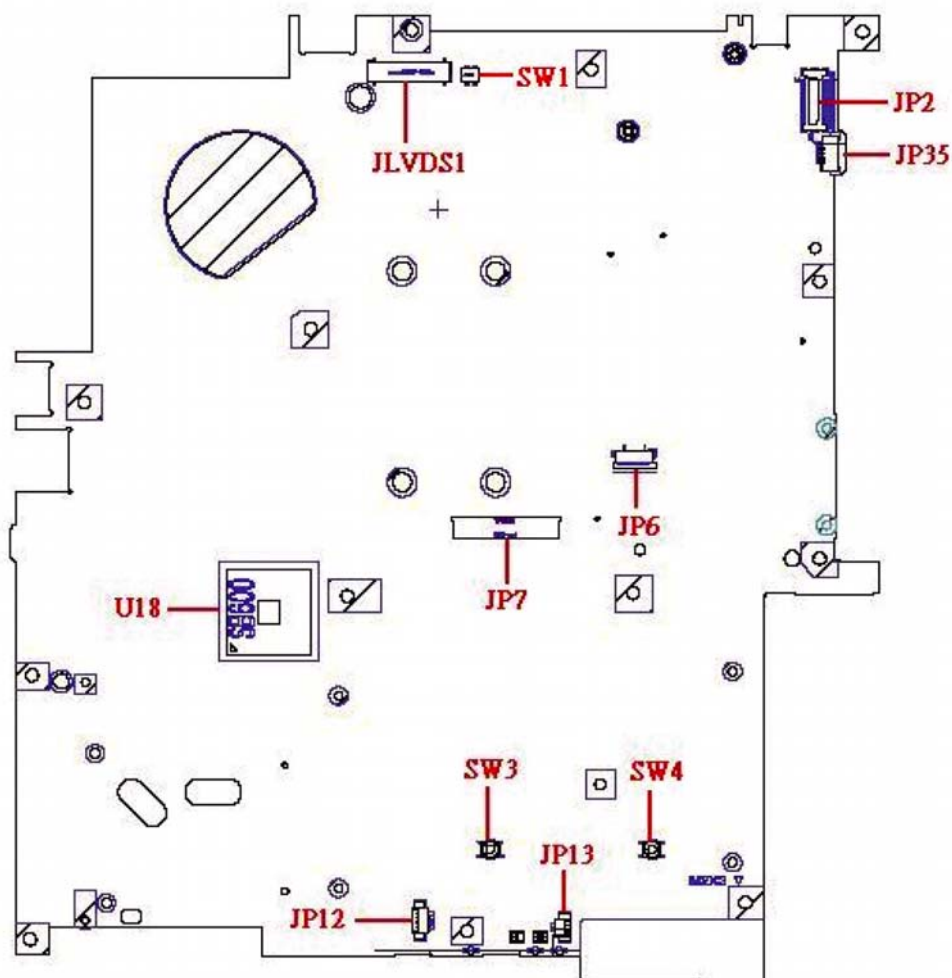
Code	Beeps	POST Routine Description
C3h		Initialize error display function
C4h		Initialize system error handler
C5h		PnPnd dual CMOS (optional)
C6h		Initialize notebook docking (optional)
C7h		Initialize notebook docking late
C8h		Force check (optional)
C9h		Extended checksum (optional)
D2h		Unknown interrupt

Code	Beeps	For Boot Block in Flash ROM
E0h		Initialize the chipset
E1h		Initialize the bridge
E2h		Initialize the CPU
E3h		Initialize system timer
E4h		Initialize system I/O
E5h		Check force recovery boot
E6h		Checksum BIOS ROM
E7h		Go to BIOS
E8h		Set Huge Segment
E9h		Initialize Multi Processor
EAh		Initialize OEM special code
EBh		Initialize PIC and DMA
ECh		Initialize Memory type
EDh		Initialize Memory size
EEh		Shadow Boot Block
EFh		System memory test
F0h		Initialize interrupt vectors
F1h		Initialize Run Time Clock
F2h		Initialize video
F3h		Initialize System Management Mode
F4h	1	Output one beep before boot
F5h		Boot to Mini DOS
F6h		Clear Huge Segment
F7h		Boot to Full DOS

* If the BIOS detects error 2C, 2E, or 30 (base 512K RAM error), it displays an additional word-bitmap (xxxx) indicating the address line or bits that failed. For example, **2C 0002** means address line 1 (bit one set) has failed. **2E 1020** means data bits 12 and 5 (bits 12 and 5 set) have failed in the lower 16 bits. Note that error 30 cannot occur on 386SX systems because they have a 16 rather than 32-bit bus. The BIOS also sends the bitmap to the port-80 LED display. It first displays the check point code, followed by a delay, the high-order byte, another delay, and then the low-order byte of the error. It repeats this sequence continuously.

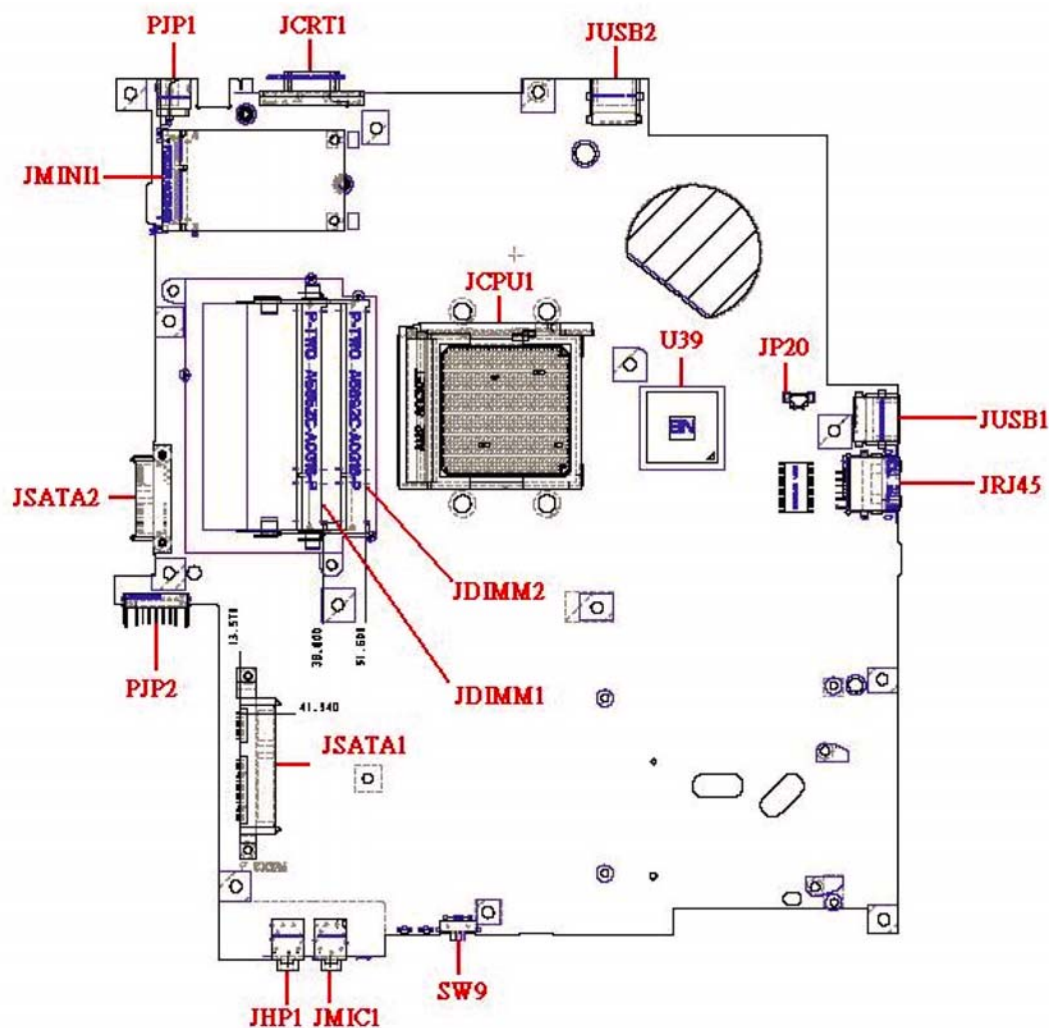
Jumper and Connector Locations

Top View



Item	Description	Item	Description
JLVD1	LCD Connector	JP35	Camera Connector
JP2	SW/B Connector	SW1	LID Switch
JP6	TouchPad Connector	SW3	TouchPad (left) Button
JP7	Internal Keyboard Connector	SW4	TouchPad (right) Button
JP12	Speaker Connector	U18	South Bridge
JP13	MIC-IN Jack		

Bottom View



Item	Description	Item	Description
JCPU1	CPU Socket	JSATA1	HDD Connector
JCRT1	CRT Connector	JSATA2	ODD Connector
JDIMM1	Memory DIMM1 Connector	PJP1	AC-IN Connector
JDIMM2	Memory DIMM2 Connector	PJP2	Battery Connector
JHP1	Head-Phone Connector	SW9	Wireless SWITCH
JMIC1	MIC-In Jack	U39	North Bridge
JMINI1	Wireless Card Connector	JUSB1	USB Connector
JP20	FAN1 Connector	JUSB2	USB Connector
JRJ-45	RJ45 Connector		

Clearing Password Check and BIOS Recovery

This section provide you the standard operating procedures of clearing password and BIOS recovery for Aspire 5515. Aspire 5515 provides one Hardware Open Gap on main board for clearing password check, and one Hotkey for enabling BIOS Recovery.

Clearing Password Check

Hardware Open Gap Description

Item	Description	Location
CMOS	Clear CMOS Jumper	DIMM Bay



Steps for Clearing BIOS Password Check

If users set BIOS Password (Supervisor Password and/or User Password) for a security reason, BIOS will ask the password during systems POST or when systems enter to BIOS Setup menu. However, once it is necessary to bypass the password check, users need to short the HW Gap to clear the password by the following steps:

- Power Off a system, and remove HDD, AC and Battery from the machine.
- Open the back cover of the machine, and find out the HW Gap on M/B as picture.
- Use an electric conductivity tool to short the two points of the HW Gap.
- Plug in AC, keep the short condition on the HW Gap, and press Power Button to power on the system till BIOS POST finish. Then remove the tool from the HW Gap.
- Restart system. Press F2 key to enter BIOS Setup menu.
- If there is no Password request, BIOS Password is cleared. Otherwise, please follow the steps and try again.

NOTE: The steps are only for clearing BIOS Password (Supervisor Password and User Password).

BIOS Recovery by Crisis Disk

BIOS Recovery Boot Block:

BIOS Recovery Boot Block is a special block of BIOS. It is used to boot up the system with minimum BIOS initialization. Users can enable this feature to restore the BIOS firmware to a successful one once the previous BIOS flashing process failed.

BIOS Recovery Hotkey:

The system provides a function hotkey: **Fn+Esc**, for enable BIOS Recovery process when system is powered on during BIOS POST. To use this function, it is strongly recommended to have the AC adapter and Battery present. If this function is enabled, the system will force the BIOS to enter a special BIOS block, called Boot Block.

Steps for BIOS Recovery from USB Storage:

Before doing this, prepare the Crisis USB key. The Crisis USB key could be made by executing the Crisis Disk program in another system with Windows XP OS.

Follow the steps below:

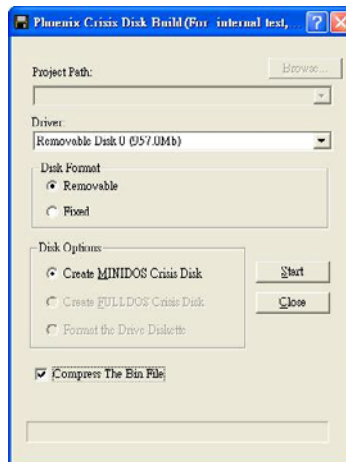
1. Save ROM file (file name: **JAL90x64.fd**) to the root directory of USB storage.
2. Plug USB storage into USB port.
3. Press **Fn + ESC** button then plug in AC.
The Power button flashes once.
4. Press **Power** button to initiate system CRISIS mode.
When CRISIS is complete, the system auto restarts with a workable BIOS.
5. Update the latest version BIOS for this machine by regular BIOS flashing process.

Steps for BIOS Recovery by Crisis Disk:

Before doing this, a Crisis Diskette should be prepared ready in hand. The Crisis Diskette could be made by executing the Crisis Disk program in another system with Windows XP OS.

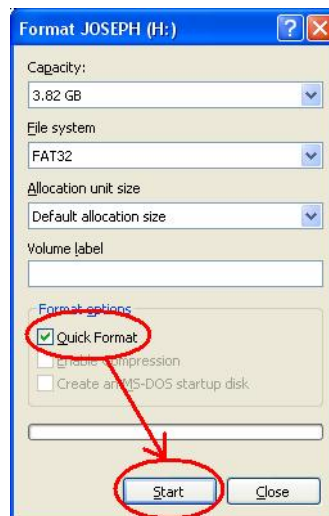
Follow the steps below:

1. Power Off failed system.
2. Attach a USB floppy drive to the failed system.
3. Copy **xxxxx.wph** to tool's folder and rename it as **BIOS.wph**.
4. Execute **wincris.exe** to start the Crisis Disk Build.
5. Select **Removable** and click **Start**.



6. Select **Quick Format Disk** and click **Start**.

A progress screen displays.



7. Click **OK** to complete the process.
8. Insert the Crisis Disk in to the USB floppy drive attached to the BIOS flash failed system.
9. In the power-off state, press and hold **Fn+Esc** then press the Power button.

The system powers on and the Crisis BIOS Recovery process begins.

BIOS Boot Block begins restoring the BIOS code from the Crisis floppy disk to BIOS ROM on the failed systems.

When the Crisis flash process is finished, the system restarts with a workable BIOS.

Update to the latest version BIOS for the system using the regular BIOS flashing process.

FRU (Field Replaceable Unit) List

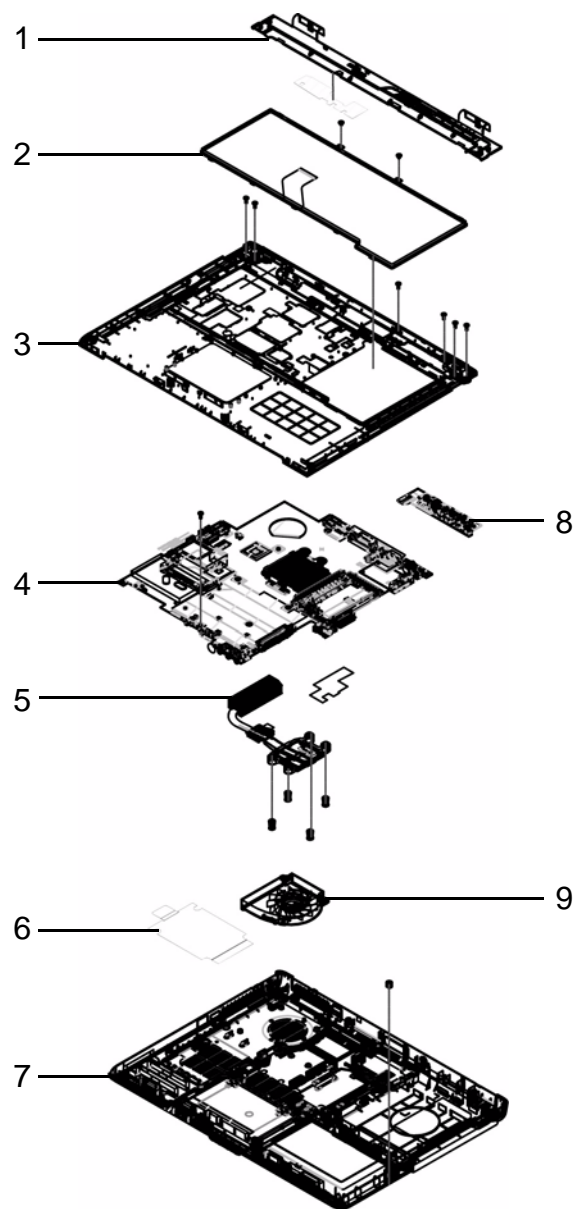
This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of Aspire 5515. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

Please note that WHEN ORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

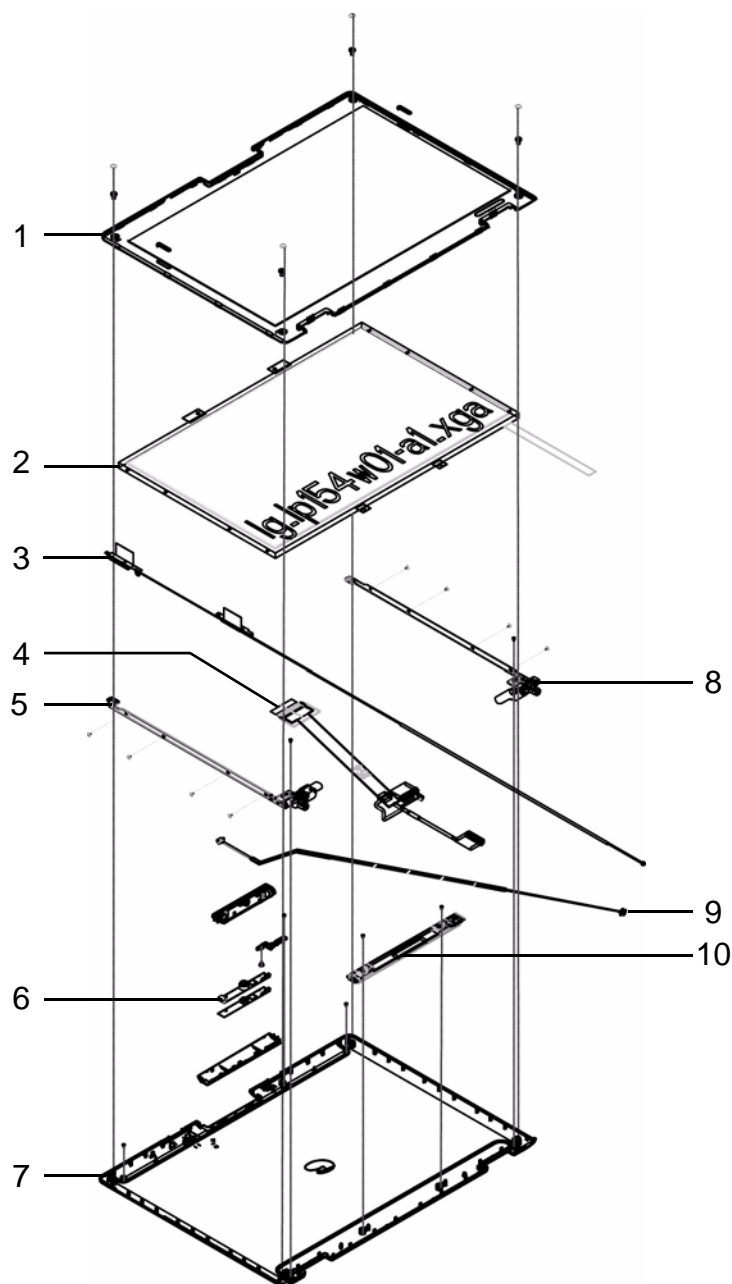
Aspire 5515 Exploded Diagrams

Main Assembly



No.	Description	Acer P/N	No.	Description	Acer P/N
1	Middle Cover	42.N2702.001	6	HDD Carrier	33.N2702.003
2	Keyboard	KB.I1400.005	7	Lower Case	60.N2702.001
3	Upper Case	60.N2702.002	8	Switch Board	55.N2702.001
4	Mainboard	MB.N2702.001	9	CPU Fan	23.N2702.001
5	Thermal Module	60.N2702.005			



LCD Panel



No.	Description	Acer P/N	No.	Description	Acer P/N
1	LCD Bezel	60.N2602.002	6	Camera Board	57.N2602.001
2	LCD Panel	6M.N2602.001	7	LCD Cover	60.N2602.001
3	Antenna	50.N2702.002	8	LCD Bracket_R	33.N2702.004
4	LCD Cable	50.N2702.003	9	MIC Cable	23.N2702.003
5	LCD Bracket_L	33.N2702.003	10	Inverter	19.N2702.001



Aspire 5515 FRU List

Category	Description	Acer Part No.
Adapter		
	ADAPTER 65W 3PIN SADP-65KB DFA DELTA	AP.06501.013
	ADAPTER 65W 3PIN SADP-65KB BFJA OBL DELTA	AP.06501.014
	ADAPTER 65W 3PIN LITE ON PA-1650-02AC	AP.06503.016
	ADAPTER 65W 3PIN HIPRO AC-OK065B13	AP.0650A.010
Battery		
	BATTERY LI-ION 6CELL 4.4KMAH SANYO	BT.00603.066
	BATTERY LI-ION 6CELL 4.4KMAH SONY	BT.00604.029
	BATTERY LI-ION 6CELL 4.4KAH SIMPLO SP SM 3S2P	BT.00607.052
Board		
	SWITCH BOARD	55.N2702.001
Cable		
	TP FFC	50.N2702.001
	ANTENNA R&L FOR W/CCD	50.N2702.002
	ANTENNA R&L FOR W/O CCD	50.N2702.004






Category	Description	Acer Part No.
	POWER CORD US 3 PIN	27.TAVV5.001
	POWER CORD EU 3 PIN	27.TAVV5.002
	POWER CORD AUS 3 PIN	27.TAVV5.003
	POWER CORD UK 3 PIN	27.TAVV5.004
	POWER CORD CHINA 3 PIN	27.TAVV5.005
	POWER CORD SWISS 3 PIN	27.TAVV5.006
	POWER CORD ITALIAN 3 PIN	27.TAVV5.007
	POWER CORD DENMARK 3 PIN	27.TAVV5.008
	POWER CORD JP 3 PIN	27.TAVV5.009
	POWER CORD SOUTH AFRICA 3 PIN	27.TAVV5.010
	POWER CORD KOERA 3 PIN	27.TAVV5.011
	POWER CORD ISRAEL 3 PIN	27.TAVV5.012
	POWER CORD INDIA 3 PIN	27.TAVV5.013
	POWER CORD TWN 3 PIN	27.TAVV5.014
	POWER CORD ARGENTINA 3 PIN	27.APV02.001
Case/Cover/Bracket Assembly		
	MIDDLE COVER	42.N2702.001
	HDD DOOR	42.N2702.002
	THERMAL DOOR	42.N2702.003
	LOWER CASE ASSY	60.N2702.001
	UPPER CASE ASSY	60.N2702.002
	TP BRACKET	33.N2702.001

Category	Description	Acer Part No.
	TP MYLAR	42.N2702.004
CPU/Processor		
	CPU AMD ATHLON 1.6G ADG2650IAV4DP	KC.AE002.265
Combo Drive		
	DVD/CDRW COMBO DRIVE MODULE	6M.N2702.001
	DVD/CDRW COMBO TOSHIBA TS-L463A 0FA	KO.02401.006
	DVD/CDRW COMBO SONY CRX890S 0FA	KO.0240E.009
	ODD BEZEL-COMBO	42.N2702.005
	ODD BRACKET	33.N2702.002
Super Multi Drive		
	DVD SUPER MULTI DRIVE MODULE	6M.N2702.002
	DVD SUPER MULTI DRIVE PIONEER DVR-TD08RS 0FA	KU.00805.044
	DVD SUPER MULTI DRIVE PIONEER DVR-TD08RS FW=1.06 0FA	KU.00805.046
	DVD SUPER MULTI DRIVE TSST TS-L633A 0FA	KU.00801.021
	DVD SUPER MULTI DRIVE HLDS GT10N GSA-T50N 0FA	KU.0080D.039
	DVD SUPER MULTI DRIVE HLDS(ML) GSA-T50N LF W/O bezel	KU.0080D.034
	DVD SUPER MULTI DRIVE PLDS DS-8A2S 0FA	KU.0080F.001
	DVD SUPER MULTI DRIVE SONY AD-7560S 0FA	KU.0080E.009
	ODD BEZEL-SUPER MULTI	42.N2702.006
	ODD BRACKET	33.N2702.002

Category	Description	Acer Part No.
HDD		
	HDD SATA 120G 5400RPM HGST HTS542512K9SA00 0FA	KH.12007.014
	HDD SATA 120G 5400RPM HGST HTS543212L9A300 0FA	KH.12007.016
	HDD SATA 120G 5400RPM TOSHIBA MK1246GSX 0FA	KH.12004.007
	HDD SATA 120G 5400RPM TOSHIBA MK1252GSX	KH.12004.008
	HDD SATA 120G 5400RPM SEAGATE ST9120817AS 0FA	KH.12001.032
	HDD SATA 120G 5400RPM WD WD1200BEVS-22UST0 0FA	KH.12008.019
	HDD SATA 160G 5400RPM HGST HTS542516K9SA00 0FA	KH.16007.016
	HDD SATA 160G 5400RPM HGST HTS543216L9A300	KH.16007.019
	HDD SATA 160G 5400RPM TOSHIBA MK1646GSX 0FA	KH.16004.002
	HDD SATA 160G 5400RPM TOSHIBA MK1652GSX	KH.16004.003
	HDD SATA 160G 5400RPM SEAGATE ST9160827AS 0FA	KH.16001.029
	HDD SATA 160G 5400RPM SEAGATE ST9160310AS	KH.16001.034
	HDD SATA 160G 5400RPM WD WD1600BEVS-22ZCT0	TBD
	HDD SATA 250G 5400RPM HGST HTS542525K9SA00 0FA	KH.25007.011
	HDD SATA 250G 5400RPM TOSHIBA MK2546GSX 0FA	KH.25004.001
	HDD SATA 250G 5400RPM SEAGATE ST9250827AS 0FA	KH.25001.011
	HDD SATA 250G 5400RPM WD WD2500BEVS-22UST0 0FA	KH.25008.018
	HDD SATA 320G 5400RPM WD WD3200BEVT-22ZCT0 0FA	KH.32008.013
	HDD SATA 320G 5400RPM HGST HTS543232L9A300	KH.32007.004
	HDD SATA 320G 5400RPM SEAGATE ST9320320AS	KH.32001.008
	HDD CARRIER	33.N2702.003

Category	Description	Acer Part No.
Keyboard		
	KEYBOARD INT'E(UI)	KB.I1400.005
	KEYBOARD GREEK(GK)	KB.I1400.026
	KEYBOARD ARABIC ENGLISH(ARE)	KB.I1400.037
	KEYBOARD T-CHIESE(CH)	KB.I1400.033
	KEYBOARD KOREAN(KO)	KB.I1400.020
	KEYBOARD RUSSIAN(RU)	KB.I1400.015
	KEYBOARD THAILAND(TI)	KB.I1400.009
	KEYBOARD HEBREW(HB)	KB.I1400.006
	KEYBOARD UK	KB.I1400.007
	KEYBOARD GERMAN(GR)	KB.I1400.027
	KEYBOARD SWITZERLAND(SW)	KB.I1400.010
	KEYBOARD CANADIAN FRENCH(CF)	KB.I1400.034
	KEYBOARD BELGIAN(BE)	KB.I1400.036
	KEYBOARD DENMARK(DM)	KB.I1400.031
	KEYBOARD ITALIAN(IT)	KB.I1400.022
	KEYBOARD FRENCH(FR)	KB.I1400.028
	KEYBOARD HUNGARY(HG)	KB.I1400.025
	KEYBOARD NORWEGIAN(NW)	KB.I1400.018
	KEYBOARD PORTUGUESE(PO)	KB.I1400.016
	KEYBOARD SPANISH(SP)	KB.I1400.012
	KEYBOARD TURKISH(TR)	KB.I1400.008
	KEYBOARD SWEDISH(SD)	KB.I1400.011
	KEYBOARD SLOVENIAN(SA/CR)	KB.I1400.014
	KEYBOARD NL NETHERLANDS	KB.I1400.030
	KEYBOARD SCANDINAVIAN(ND)	KB.I1400.039
	KEYBOARD ARABIC-FRENCH (AR/FR)	KB.I1400.038
	KEYBOARD CANADIAN BILINGUAL(EN+FR)(CB)	KB.I1400.040
	KEYBOARD SLOVAK(SV)	KB.I1400.013
	KEYBOARD BRAZILIAN(BZ)	KB.I1400.035
	KEYBOARD CZECH-SLOVAKIAN(CZ/SK)	KB.I1400.042
	KEYBOARD JA	KB.I1400.041
LCD		
	ASSY LCD MODULE 15.4 IN. WXGA GLARE W/ ANTENNA CCD	6M.N2602.001
	LCD PANEL G 15.4 WXGA AU B154EW08 V1(3A) S01	LK.15405.034
	LCD PANEL G 15.4 WXGA AU B154EW08 V1 3A S03	TBD
	LCD PANEL G 15.4 WXGA CMO N154I3-L03	LK.1540D.022
	LCD PANEL G 15.4 WXGA LG LP154WX4-TLB4	LK.15408.029
	LCD PANEL G 15.4 WXGA SEC LTN154AT01-A01	TBD
	LCD PANEL G 15.4 WXGA SEC LTN154AT01-A04	TBD
	LCD PANEL G 15.4 WXGA SEC LTN154AT01-A02	LK.15406.035

Category	Description	Acer Part No.
	INVERTER BOARD	19.N2702.001
	LCD CABLE	50.N2702.003
	LCD COVER FOR W/CCD	60.N2602.001
	LCD BEZEL FOR W/CCD	60.N2602.002
	LCD BRACKET-R FOR W/CCD	33.N2702.004
	LCD BRACKET-L FOR W/CCD	33.N2702.005
	CAMERA 0.3M	57.N2602.001
	CMOS CABLE	50.N2602.001
	ASSY LCD MODULE 15.4 IN. WXGA GLARE W/ ANTENNA	6M.N2702.003
	LCD PANEL G 15.4 WXGA AU B154EW08 V1(3A) S01	LK.15405.034
	LCD PANEL G 15.4 WXGA AU B154EW08 V1 3A S03	TBD
	LCD PANEL G 15.4 WXGA CMO N154I3-L03	LK.1540D.022
	LCD PANEL G 15.4 WXGA LG LP154WX4-TLB4	LK.15408.029
	LCD PANEL G 15.4 WXGA SEC LTN154AT01-A01	TBD
	LCD PANEL G 15.4 WXGA SEC LTN154AT01-A04	TBD
	INVERTER BOARD	19.N2702.001
	LCD CABLE	50.N2702.003
	LCD COVER FOR W/O CCD	60.N2702.003

Category	Description	Acer Part No.
	LCD BEZEL FOR W/O CCD	60.N2702.004
	LCD BRACKET-R FOR W/O CCD	33.N2702.006
	LCD BRACKET-L FOR W/O CCD	33.N2702.007
Mainboard		
	MAINBOARD AS5515 ATI RS690MC SB600 LF WITH ALL CONNECTERS	MB.N2702.001
Memory		
	RAM 512M DDRII 667 NANYA NT512T64UH8B0FN-3C 512/66	KN.51203.032
	RAM 512M DDRII 667 SAMSUNG M470T6464QZ3-CE6 512M/667	KN.5120B.026
	RAM 512M DDRII 667 HYNIX HYMP164S64CP6-Y5 512/667	KN.5120G.024
	RAM 1G DDRII 667 NANYA NT1GT64U8HB0BN-3C 1G/667	KN.1GB03.014
	RAM 1G DDRII 667 NANYA NT1GT64UH8D0FN-3C 1G/667	KN.1GB03.026
	RAM 1G DDRII 667 SANSUNG M470T2864QZ3-CE6 1G/667	KN.1GB0B.016
	RAM 1G DDRII 667 HYNIX HYMP112S64CP6-Y5 1G/667	KN.1GB0G.012
	RAM 1G DDRII 667 MICRON MT8HTF12864HDY-667E1	KN.1GB04.001
	RAM 1G DDRII 667 ELPIDA EBE11UE6ACUA-6E-E 1G/667	KN.1GB09.008
	RAM 2G DDRII 667 HYNIX HYMP125S64CP8-Y5 2GB/667	KN.2GB0G.004
	RAM 2G DDRII 667 NANYA NT2GT64U8HD0BN-3C	KN.2GB03.011
	RAM 2G DDRII 667 SAMSUNG M470T5663QZ3-CE6 2G/667	KN.2GB0B.003
	RAM 2G DDRII 667 ELPIDA EBE21UE8ACUA-6E-E 2G/667	KN.2GB09.001
	RAM 2G DDRII 667 MICRON MT16HTF25664HY-667E1 2G/6	KN.2GB04.001

Category	Description	Acer Part No.
Fan		
	FAN	23.N2702.001
Heatsink		
	CPU THERMAL MODULE	60.N2702.005
Speaker		
	SPEAKER R&L	23.N2702.002
	MIC	23.N2702.003
TouchPad		
	TOUCHPAD	56.N2702.001
Miscellaneous		

Screw List

Category	Description	Acer Part No.
Screw		
	M2.46D 3L K 5.5D 0.8T ZK NL	86.N2702.001
	M2.48D 6L K 5.5D 0.8T ZK NL	86.N2702.002
	M2.5D 10L K 5.5D ZK NL+ CR3+	86.N2702.003
	M2.5D 15L K 5.5D ZK NL +CR3+	86.N2702.004
	M2D 2.5L K 4.05D NI NL+	86.N2702.005
	M1.98D 3L K 4.6D 0.8T ZK NL+	86.N2702.006
	M2D 3L K 5.5D ZK NL +CR3+	86.N2702.007
	M3D 4L K 5.4D ZK NL +CR3+	86.N2702.008
	M2D 4.0L K 4.6D NI NL+	86.N2702.009
	M2.5D 4.0L K 4.6D NI NL+	86.N2702.010

Model Definition and Configuration

Aspire 5515 Series

Model	RO	Country	Acer Part No	Description
eME620-262G12Mi	EMEA	UK	LX.N260Y.034	eME620-262G12Mi VHB32eTGB1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_EN11
eME620-262G12Mi	EMEA	Denmark	LX.N260Y.032	eME620-262G12Mi VHB32eTDK1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_NO11
eME620-262G12Mi	EMEA	Sweden/Finland	LX.N260Y.026	eME620-262G12Mi VHB32eTSE1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_FI11
eME620-262G12Mi	EMEA	Italy	LX.N260Y.008	eME620-262G12Mi VHB32eTIT1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_IT11
eME620-261G16Mi	TWN	GCTWN	LX.N260Y.042	eME620-261G16Mi VHB32eTTW1 UMAC 1*1G/160/6L/CB_bg_0.3D_AN_TC11
eME620-262G12Mi	EMEA	Middle East	LX.N260Y.004	eME620-262G12Mi EM VHB32eTME9 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_FR21
eME620-262G12Mi	EMEA	Switzerland	LX.N260Y.001	eME620-262G12Mi VHB32eTCH1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_IT41
eME620-262G12Mi	EMEA	Slovenia/Croatia	LX.N260Y.016	eME620-262G12Mi VHB32eTSI1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_EN11
eME620-262G12Mi	EMEA	Spain	LX.N260Y.012	eME620-262G12Mi VHB32eTES1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_ES21
eME620-262G12Mi	EMEA	Greece	LX.N260Y.011	eME620-262G12Mi VHB32eTGR1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_EL21
eME620-262G12Mi	PA	ACLA-Portuguese	LX.N260Y.040	eME620-262G12Mi EM VHB32eTxC1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_XC21
eME620-261G16Mi	CHINA	China	LX.N260C.004	eME620-261G16Mi LIMPUSecN1 UMAC 1*1G/160/6L/CB_bg_0.3D_AN_EN91
eME620-261G16Mi	CHINA	Hong Kong	LX.N260C.003	eME620-261G16Mi LIMPUSecHK2 UMAC 1*1G/160/6L/CB_bg_0.3D_AN_EN91
eME620-262G25Mi	AAP	Indonesia	LX.N260C.007	eME620-262G25Mi LIMPUSelD1 UMAC 2*1G/250/6L/CB_bg_0.3D_AN_ID21
eME620-262G12Mi	EMEA	Turkey	LX.N260Y.010	eME620-262G12Mi EM VHB32eTTR1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_TR11
eME620-262G12Mi	EMEA	Slovenia/Croatia	LX.N260C.001	eME620-262G12Mi LIMPUSeSI1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_EN15
eME620-262G12Mi	EMEA	Germany	LX.N260Y.027	eME620-262G12Mi VHB32eTDE1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_DE11
eME620-262G12Mi	EMEA	Holland	LX.N260Y.029	eME620-262G12Mi VHB32eTNL1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_NL11
eME620-262G12Mi	EMEA	Eastern Europe	LX.N260Y.022	eME620-262G12Mi VHB32eTEU4 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_FI11
eME620-262G12Mi	EMEA	Eastern Europe	LX.N260Y.018	eME620-262G12Mi VHB32eTEU1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_CS21
eME620-262G12Mi	EMEA	Eastern Europe	LX.N260Y.020	eME620-262G12Mi VHB32eTEU5 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_PL11
eME620-262G12Mi	PA	Canada	LX.N260Y.038	eME620-262G12Mi VHB32eTCA2 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_FR31

Model	RO	Country	Acer Part No	Description
eME620-262G12Mi	PA	ACLA-Spanish	LX.N260Y.036	eME620-262G12Mi EM VHB32eTEA1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_ES21
eME620-261G16Mi	CHINA	China	LX.N260Y.044	eME620-261G16Mi VHB32eTCN1 UMAC 1*1G/160/6L/CB_bg_0.3D_AN_SC11
eME620-262G12Mi	EMEA	Middle East	LX.N260Y.003	eME620-262G12Mi EM VHB32eTME3 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_FR21
eME620-262G12Mi	EMEA	Middle East	LX.N260Y.002	eME620-262G12Mi EM VHB32eTME2 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_AR11
eME620-262G12Mi	EMEA	South Africa	LX.N260Y.033	eME620-262G12Mi EM VHB32eTZA2 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_EN11
eME620-262G12Mi	EMEA	Turkey	LX.N260Y.009	eME620-262G12Mi EM VHB32eTTR1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_TR41
eME620-262G12Mi	PA	USA	LX.N260Y.039	eME620-262G12Mi VHB32eTUS1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_EN31
eME620-262G12Mi	EMEA	Belgium	LX.N260Y.028	eME620-262G12Mi VHB32eTBE1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_NL11
eME620-262G12Mi	EMEA	Luxembourg	LX.N260Y.030	eME620-262G12Mi VHB32eTLU1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_IT41
eME620-262G12Mi	EMEA	Czech	LX.N260Y.023	eME620-262G12Mi VHB32eTCZ2 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_SK11
eME620-262G12Mi	EMEA	Portugal	LX.N260Y.013	eME620-262G12Mi VHB32eTPT1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_PT11
eME620-262G25Mi	AAP	India	LX.N260C.005	eME620-262G25Mi LINPUSeIN1 UMAC 2*1G/250/6L/CB_bg_0.3D_AN_EN11
eME620-261G16Mi	AAP	India	LX.N260C.006	eME620-261G16Mi LINPUSeIN1 UMAC 1*1G/160/6L/CB_bg_0.3D_AN_EN11
eME620-262G12Mi	EMEA	South Africa	LX.N260Y.035	eME620-262G12Mi EM VHB32eTZA1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_FR21
eME620-262G12Mi	EMEA	France	LX.N260Y.031	eME620-262G12Mi VHB32eTFR1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_FR21
eME620-262G12Mi	EMEA	Norway	LX.N260Y.024	eME620-262G12Mi VHB32eTNO1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_NO11
eME620-262G12Mi	EMEA	Russia	LX.N260Y.025	eME620-262G12Mi VHB32eTRU1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_RU11
eME620-262G12Mi	EMEA	Eastern Europe	LX.N260Y.017	eME620-262G12Mi VHB32eTEU7 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_ENG1
eME620-262G12Mi	EMEA	Eastern Europe	LX.N260Y.019	eME620-262G12Mi VHB32eTEU2 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_HU21
eME620-262G12Mi	EMEA	Hungary	LX.N260Y.015	eME620-262G12Mi VHB32eTHU1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_HU11
eME620-262G12Mi	PA	ACLA-Spanish	LX.N260Y.037	eME620-262G12Mi EM VHB32eTEA3 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_ES21
eME620-261G16Mi	CHINA	Hong Kong	LX.N260Y.043	eME620-261G16Mi VHB32eTHK2 UMAC 1*1G/160/6L/CB_bg_0.3D_AN_ZH31
eME620-262G16Mi	AAP	Indonesia	LX.N260C.008	eME620-262G16Mi LINPUSeID1 UMAC 2*1G/160/6L/CB_bg_0.3D_AN_ID21
eME620-262G12Mi	EMEA	Middle East	LX.N260Y.006	eME620-262G12Mi EM VHB32eTME6 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_EN11
eME620-262G12Mi	EMEA	Eastern Europe	LX.N260Y.014	eME620-262G12Mi VHB32eTEU6 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_CS21
eME620-262G16Mi	AAP	Australia/New Zealand	LX.N270C.001	eME620-262G16Mi LINPUSeAU1 UMA 1*2G/160/6L/CB_bg_AN_EN11
eME620-262G12Mi	EMEA	Middle East	LX.N260Y.005	eME620-262G12Mi EM VHB32eTME2 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_AR21

Model	RO	Country	Acer Part No	Description
eME620-262G12Mi	EMEA	Eastern Europe	LX.N260Y.021	eME620-262G12Mi VHB32eTEU3 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_RU11
eME620-262G12Mi	EMEA	Israel	LX.N260Y.007	eME620-262G12Mi VHB32eTIL1 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_HE11
eME620-262G12Mi	PA	ACLA-Portuguese	LX.N260Y.041	eME620-262G12Mi EM VHB32eTxC2 UMAC 1*2G/120/6L/CB_bg_0.3D_AN_XC21
eME620-264G25Mi	AAP	Indonesia	LX.N260C.002	eME620-264G25Mi LINPUSelD1 UMAC 2*2G/250/6L/CB_bg_0.3D_AN_ID21

Model	CPU	LCD	Mem 1	Mem 2	HDD 1(GB)	ODD	WLAN
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-261G16Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-261G16Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	N	N160GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-261G16Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	N	N160GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G25Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	SO1GBII6	N250GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG

Model	CPU	LCD	Mem 1	Mem 2	HDD 1(GB)	ODD	WLAN
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-261G16Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	N	N160GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G25Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	SO1GBII6	N250GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-261G16Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	N	N160GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-261G16Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	N	N160GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G16Mi	ATH2650e	N15.4WXGAG8	SO1GBII6	SO1GBII6	N160GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G16Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N160GB 5.4KS	NSM8XS	3rd WiFi BG

Model	CPU	LCD	Mem 1	Mem 2	HDD 1(GB)	ODD	WLAN
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-262G12Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	N	N120GB 5.4KS	NSM8XS	3rd WiFi BG
eME620-264G25Mi	ATH2650e	N15.4WXGAG8	SO2GBII6	SO2GBII6	N250GB 5.4KS	NSM8XS	3rd WiFi BG

Test Compatible Components

This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Windows® XP Home, Windows® XP Pro environment.

Refer to the following lists for components, adapter cards, and peripherals which have passed these tests. Regarding configuration, combination and test procedures, please refer to the Aspire 5515 Compatibility Test Report released by the Acer Mobile System Testing Department.

Microsoft® Windows® Vista Environment Test

Vendor	Type	Description
Adapter Test		
Audio Codec		

Online Support Information

This section describes online technical support services available to help you repair your Acer Systems.

If you are a distributor, dealer, ASP or TPM, please refer your technical queries to your local Acer branch office. Acer Branch Offices and Regional Business Units may access our website. However some information sources will require a user i.d. and password. These can be obtained directly from Acer CSD Taiwan.

Acer's Website offers you convenient and valuable support resources whenever you need them.

In the Technical Information section you can download information on all of Acer's Notebook, Desktop and Server models including:

- Service guides for all models
- User's manuals
- Training materials
- Bios updates
- Software utilities
- Spare parts lists
- TABs (Technical Announcement Bulletin)

For these purposes, we have included an Acrobat File to facilitate the problem-free downloading of our technical material.

Also contained on this website are:

- Detailed information on Acer's International Traveler's Warranty (ITW)
- Returned material authorization procedures
- An overview of all the support services we offer, accompanied by a list of telephone, fax and email contacts for all your technical queries.

We are always looking for ways to optimize and improve our services, so if you have any suggestions or comments, please do not hesitate to communicate these to us.

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